OBSTACLES AND ADVANTAGES TO HIRING/RETAINING OLDER WORKERS: PERSONNEL DECISION-MAKERS' KNOWLEDGE AND PERCEPTIONS OF OLD AGE AND OLDER WORKERS

By

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To my loving husband and children
whose continued encouragement
and support made this
project possible.

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Abstract of Dissertation Presented to the Graduate School
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OBSTACLES AND ADVANTAGES TO HIRING/RETAINING OLDER WORKERS: PERSONNEL DECISION-MAKERS' KNOWLEDGE AND PERCEPTIONS OF OLD AGE AND OLDER WORKERS

By

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This study was conducted to determine if those who hire, promote, train, and terminate employees have need of knowledge about older adults. It was also conducted to determine if a need existed for counseling to change personnel decision-makers' perceptions of obstacles and advantages to hiring/retaining older workers.

The instrument used to measure the need for knowledge about older adults was Erdman Palmore's Facts on Aging Quiz: I. Harold Sheppard's Employing the Older Worker Scale was used to measure personnel decision-makers' perceptions about older workers. A total of 150 personnel decision-makers from firms in the greater Orlando area agreed to participate. Instruments and questionnaires were mailed to these 150 personnel decision-makers and 116 were returned.

Responses were analyzed by test sets and by test items. Also, the responses were grouped by percentage of older workers employed and differences among groups analyzed using an ANOVA. When an F ratio was significant, Bonferroni's t was used to determine which pairs of group means were significantly ($p = .05$) different. The Pearson's correlation was used to determine relationships between total scores on Facts on Aging Quiz: I and item scores on Employing the Older Worker Scale. Similarly, percent of older workers in the firms were related to total scores on the Facts on Aging Quiz: I.

Personnel decision-makers' perceptions of older workers differed very little by the percentage of older workers employed. However, some statistically significant differences were found at the .05 level. Correlations between scores on Facts on Aging Quiz: I and item scores on Employing the Older Worker Scale were modest. However, 7 of 30 correlations were statistically significant at the .05 level. The correlation between the percent of workers in the firms and total scores on the Facts on Aging Quiz: I was not significant ($r = .03$).

It was concluded that personnel decision-makers' knowledge and perceptions were not major barriers to hiring/retaining older workers. Also, there was little evidence that changing personnel decision-makers knowledge would result in increased numbers of older workers. It was recommended that other possible explanations for the low percentages of older workers should be explored.

CHAPTER 1
INTRODUCTION

Statement of the Problem

Supervisors and personnel decision-makers often believe that older workers (i.e., those age 65 and over) have less interest and are less motivated in learning new skills (Perlman & Austin, 1987). Consequently, they make career development and training opportunities less available for older workers (Perlman & Austin, 1987). This could be a contributing factor in the steady decline of older worker participation in the work force (Butler, 1986). While at a hearing before the Subcommittee on Retirement Income and Employment, Select Committee on Aging, U.S. House of Representatives (1984), Alice Gonzales, Director of the California Department of Aging, stated, "we must launch an aggressive education and awareness program to explode . . . myths for both the older worker and the employer" (p. 7). The lowering of the retirement age was researched by Howard Fullerton (1984) of the Office of Economic Growth and Employment Projection. He noted that 65 years is no longer the standard retirement age for most people with private pensions; the median age for workers to start drawing pensions was 62 years of age (Fullerton, 1984). Thus, the decline in number of older persons in the work force is in part due to voluntary early retirement policies (Copperman, Montgomery, & Keast, 1979).

Regardless of the fact that older workers are retiring early, 53% of retired individuals who were polled regretted their decision to retire (Louis Harris and Associates, Inc., 1979). One can infer that, in 1978, over 3,500,000 retirees who were able to work would have preferred to return to work. Unfortunately, employment was difficult for older individuals to find, in part because of personnel decision-makers' stereotypical perceptions of older workers (Butler, 1975; Cowan, 1982; Kieffer & Flemming, 1980; Sheppard & Rix, 1977; Stagner, 1971).

The percentage of persons aged 65 years and older is expected to increase from 11% to 13% of the general population of the United States by the year 2010 (Statistical Brief, 1986). In numbers, this will be an increase from 19,000,000 in 1983 to over 34,000,000 in 2010. An Associated Press (1987) release in the Orlando Sentinel reported that according to sociologist David Sly and economist William Sero, both of Florida State University, Florida will have the greatest proportion of people age 65 and over. By 1992, Floridians over age 65 will represent 20% of the state's population. This represents an increase from 1,700,000 in 1980 to 2,700,000 in 1992. The increase will affect the labor force as shortages occur in those of employment age (Perlman & Austin, 1987). Increased longevity and improved health services are seen as primary reasons for the increase (Pifer, 1986).

Longer life span corresponds to an increase in the amount of time a worker can expect to be employed. The average number of post-employment years of living for a man in 1975 was 14 years. It has been predicted that by the year 2000 the average man will have 25 years of retirement (Kieffer & Flemming, 1980). Other projections led to the conclusion that there will be improved health among older individuals. Improved health is usually a strong indicator of desire to participate in the work force (Morrison & Barocas, 1984). Sheppard and Rix (1977) wrote, "the 65 year old to 74 year old of 2010 will, for the most part, be in much better condition to continue in the productive, active labor force" (p. 162).

A conclusion in a report by the Florida Committee on Aging (1986) was that there is an emerging possibility there would be an increasing proportion of elderly retirees to workers. The change was projected to be from four workers to one nonworker in 1986 to two workers to one nonworker in the future. The committee believed that the changing economic conditions might stress the fiscal integrity of all retirement benefit programs. The committee concluded that what appeared to be needed was a broader look at retirement policies and programs.

Emphasis had to be placed on age factors used within personnel policies and retirement systems.

Need for the Study

According to Butler (1986), there is a need for research related to older workers as they affect what occurs in the work place and in turn are affected themselves. Early retirement practices could result in a potentially harmful trend toward increased unemployment of the over 65 population (Salisbury, 1986).

The need for research to obtain data on personnel decision-maker knowledge of older adults and perceptions of the advantages and obstacles to hiring and/or retaining older workers was emphasized by early retirement practices. The need for the research was heightened by the possibility that personnel decision-makers' knowledge and perceptions of older workers may be contributing to early retirement.

The need for this study also was in part based on the prediction of the Greater Orlando Chamber of Commerce that there would be 108,000 new job openings in that area by the year 1990 (Monroe, 1987). Researchers concluded from the data drawn from a recent study conducted at the University of Florida (Taylor, 1987) that Orlando appeared to be enjoying job growth. For example, there was a 42% increase in the number of available jobs during the years from 1982 to 1987 for an employment base of 459,239 workers (Taylor, 1987). Thus, employers might need to hire older workers to fill those openings.

Because of the aging of the population in America, it is apparent that in the decades to come, meeting the needs of these older adults necessitates their needs receiving a high priority (Perlman & Austin, 1987). Instructors' training counselors in a higher education setting are preparing students to serve persons of varying ages, i.e., persons in their late teens to those in their 60s and 70s (Moser, 1986). With the increase in jobs and dearth of younger workers, counselors will need to understand what personnel decision-makers in business and industry want and expect from older workers in order to better serve the needs of industry and older employees (Moser, 1986).

Description of Older Workers

Population

Between the years 1985 and 2000 in the State of Florida the number of individuals aged 65 and older will increase approximately 32%, from 2,107,200 in 1985 to 3,069,000 in 2000 (Florida Statistical Abstract, 1985, p. 20). Taylor (1985) further projected that in the year 2000, the number of older residents in counties comprising the greater Orlando area to be as follows: Orange, 114,246; Osceola, 30,066; and Seminole, 50,804.

Physical and Mental Status

The graying of the American work force is due in part to the fact that more people are living longer and maintaining good mental and physical health (Butler, 1986; Kieffer & Flemming, 1980; Perlman & Austin, 1987; Wantz & Gay, 1981; Yankelovich, Skelly, & White, Inc.,1985). Their improved health status influences their retirement decisions (Burkhauser & Quinn, 1983) since health is a powerful predictor of early withdrawal from the labor force (Butler, 1986).

A large majority of older workers indicated they wanted to work past retirement age (Gollub, 1983). Older workers indicated that improved conditions of health, need for additional income, and personal decision to delay retirement were reasons for working past retirement age (Perlman & Austin, 1987). It was encouraging that older workers were now being considered for further promotion, training, development, and new hires (Anderson, Kennell, & Sheils, 1983; Copperman, Montgomery, & Keast, 1979; Perlman & Austin, 1987).

Myths and Realities of Aging

There is no question that older workers are confronted by very real barriers to employment (Sterns & Alexander, 1987). A majority of personnel managers interviewed felt that those who made hiring decisions in business and industry discriminated against older workers

(Louis Harris and Associates, Inc., 1979). Lack of knowledge about older workers could be one factor involved in discrimination (Kieffer, 1983). This researcher sought to determine if a lack of knowledge still existed. It has been contended that older workers are less productive because of slowness, less adaptability, unwillingness or inability to adopt new work habits and methods, and/or lack of readiness to show initiative (Butler, 1975; Coberly & Newquist, 1984; Schaie, 1980; Stagner, 1971). Even when confronted with evidence to the contrary (i.e., that the older worker might be as capable as the younger worker) employers still opted to hire younger workers (Louis Harris & Associates, Inc., 1979). Despite the fact that older workers generally have more skills than those below 45 years of age, younger workers get preference in employment (Doering, Rhodes, & Schuster, 1983; Stagner, 1971). The importance of this research becomes obvious with this quote by William L. Kendig (1979) in his book, Age Discrimination in Employment:

> Day after day each of us relentlessly grows older; day after day each of us not already there move closer toward the age limits cited previously; each day might be likened to the ticking of a bomb that could explode our personal lives with the reality of age discrimination. For each of us the time bomb is ticking; for each of us age discrimination in employment could become a reality. (p. 300)

Dependency Ratio

In the absence of any turnaround in the inability of national and world leaders to stop inflation, the economy of this country would be incapable of sustaining the weight of the system of existing public and private pension benefits (Butler, 1975; Cowan, 1982). If the 1983 retirement trend continues, by the year 2010 there will be a projected ratio of two workers to support one retiree, instead of the present ratio of four workers to one retiree (Ganikos, Grady, & Olson, 1979; Morrison & Barocas, 1984).

According to Wallfesh (1978), the U.S. Social Security Act of 1935 came into being for the purpose of removing older people from the labor force when unemployment was 25%. This condition no longer exists, since unemployment in 1986 was lower than 7% (*Statistical Brief*, 1986).

One of the priority issues that had to be confronted was the degree to which the United States could accommodate lowered rates of labor force participation among those 45 years and older (U.S. Department of Labor, Employment and Training Administration, 1979). That is, the degree to which the economy would be capable of supporting a growing population of nonworking elderly (Sheppard & Rix, 1977).

Needs of the Older Worker

Older people may choose to retire, not because they no longer want to work, but because they do not want to remain in unsatisfying jobs (Sheppard & Rix, 1977). It is possible that lack of job opportunities matching the needs of the elderly, is in part responsible for the exit of the elderly from the job market (Coberly, 1983).

If adequate jobs were available, would the older individual work? According to a 1979 Louis Harris and Associates, Inc. poll, 88% of the employees surveyed said they would like to work in some capacity, 48% of those between the ages of 50 and 64 wished to continue working after age 65, 46% of those already retired would prefer to be working, and 53% of the retired workers wished they had never quit. Support for delayed retirement comes from Ekerdt (1987). The reasons given for delayed retirement were need for money (75%), the people at work (73%), the work itself (60%), and the feeling of usefulness (59%). Meaningful roles (i.e., activities which contribute to self-esteem and satisfaction) and fair treatment were important factors in work versus retirement decisions for the older individual (Kieffer & Flemming, 1980; McNeely, 1988; Meier, 1976). This research was deemed important because it was in part focused on issues that impacted on business and industry related to the needs of the older worker.

Needs of Industry

As noted in the literature, needs of the older employee have been explored in depth; however, needs of employers have been neglected by researchers. It is these needs that will have an impact on the eventual hiring and retaining of the older worker. One hundred and six million more jobs may be available by the year 2000 than were available in 1980, and employers may be forced to turn to the older worker (Gillaspy, 1980). However, periods of low productivity often require a paring of payrolls and older people are usually the first to be laid off (Honig & Hanoch, 1980; Wallfesh, 1978). The needs of industry appeared to be tied to the vicissitudes of the economic climate of the country (Sheppard & Rix, 1977).

Besides having a possible dearth of workers to fill existing jobs, another consideration for industry leaders is the competition from foreign markets. Foreign trade increases requirements on the part of domestic industry leaders to produce and market products with priority given to quality and price (Adamec, 1982). The priority forces employers to pay attention to the cost of goods and services, concluded the Subcommittee on Retirement Income and Employment, Select Committee on Aging (1984).

The older employee is likely to be affected directly by the need for employers to remain competitive by cutting costs. Especially is this true with the escalating cost of health care and employee benefits brought about by such legislation as the U.S. Tax Equity and Fiscal Responsibility Act of 1982, and before that, the U.S. Employee Retirement Income Stabilization Act of 1974.

Focus of the Study

The problems addressed in this study focused on the employability of older individuals who, with the help of modern science, are able to live longer, more productive lives. Business and industry leaders are required by legislation and economically to examine factors both contributing to employment and hindering employment of individuals aged 65 and over. The researcher in this study intended to discover if personnel decision-makers' knowledge about older adults and perceptions of older workers were related to the employment of older workers.

Purpose of the Study

The purpose of this descriptive research was to determine various aspects of personnel decision-makers' knowledge about older adults and perceptions concerning the obstacles and advantages to retaining and hiring older workers. Specifically, personnel decision-makers were assessed to determine (a) their perceptions about advantages and obstacles to hiring and retaining older workers, (b) their knowledge about stereotypes and realities concerning the elderly, and (c) the relationship of these variables to the proportion of older workers in a firm. Firms were categorized according to proportion of older workers employed: those with no older workers were designated as Group 1, those with .001 through 5% older workers were designated as Group 2, and those with more than 5% older workers were designated as Group 3.

No literature was found in which the relationships between the number of older workers in a firm and personnel decision-makers' perceptions of obstacles and advantages to hiring and retaining older workers were studied. By examining these relationships new information was contributed to the field. Further, more information was provided about the extent to which those who hire, promote, train, and terminate employees, regardless of the percentage of older employees in the firm, were knowledgeable about older adults.

Almost yearly, legislation is passed that positively or negatively affects the obstacles and advantages to hiring and retaining older workers. The data provided herein could prove useful to legislators in the shaping of future policies, and to individuals in business and industry concerned with sources of labor and the conservation of trained personnel.

The extent of the knowledge base of employers and personnel managers with regard to the older individual's abilities and liabilities has to be determined to encourage a positive older worker hiring posture.

Determining what employers and personnel managers consider obstacles and advantages could result in different legislation and policy recommendations for both the public sector and the private sector. Employment counselors working with persons 65 years of age and older need to know and be advised what obstacles and advantages affect personnel decision-makers hiring and retaining practices. The variables affecting the choices of personnel decision-makers must be identified and reviewed for their use in practice and in the training of professionals (Perlman & Austin, 1987).

The review of the literature in Chapter 2 provides historical data on existing legislation, proposed policy and legislation, and future considerations. Legislation is cyclical in nature; it seems to stem from and contribute to attitudes and perceptions (Coberly, 1983; Morrison & Barocas, 1984). Changes in legislation and attitudes could be favorable to older worker hiring practices by removing obstacles and increasing advantages. As M. H. Beach (1986) of Travelers Insurance pointed out, "we must create job opportunities for older workers because it is good for the economy as a whole, good for older people, and good for business" (p. 30).

Research Questions

Consistent with the purpose of this study, answers to the following research questions were sought:

1. What is the level of personnel decision-makers' knowledge about the myths and realities of aging?
2. To what degree do personnel decision-makers perceive selected issues to be obstacles to retaining older workers?
3. To what degree do personnel decision-makers perceive selected issues to be obstacles to hiring older workers?
4. To what degree do personnel decision-makers perceive selected issues to be advantages to retaining older workers?
5. To what degree do personnel decision-makers perceive selected issues to be advantages to hiring older workers?
6. What is the relationship between personnel decision-makers' knowledge about aging and their level of responses to obstacles to hiring and retaining older workers?
7. What is the relationship between personnel-decision makers' knowledge about aging and their level of responses to the advantages to hiring and retaining older workers?

8. What is the relationship between personnel decision-makers' knowledge about aging and the percent of older workers in a firm?
9. When the responses of the personnel decision-makers to the items on the Employing the Older Workers Scale are categorized according to the proportion of older workers employed in the firms of the personnel decision-makers, are there differences (p = .05) in (a) the item means and (b) the means of selected subsets of items?
10. When the total scores of the personnel decision-makers on the Facts on Aging Quiz: I are categorized according to the proportion of older workers employed in the firms of the decision makers, is there a difference (p = .05)?

Rationale

This study was based, in part, on Erikson's developmental theory (1974), Maslow's needs theory (1968), and Super's view of occupational choice (1984). According to Erikson (1974), people continue to develop into old age and bring strengths into each stage of their lives. If so, older workers should have strengths to bring to the work place. Maslow (1968) stated that older people have needs for security, belongingness, respect, and achievement. Given these strengths and needs, the work place could be an excellent arena for the expression of strengths and realization of needs. Occupational choice, according to Super (1984), occurs over a lifetime as situations develop and people change. These choices are a function of an individual's personality, attributes, and the situation; they are not tied to age.

Age discrimination may decrease the chances of the older worker remaining in or entering the work force (Perlman & Austin, 1987). Professionals in areas relating to aging, discrimination, and work should be trained to dispel the myths that serve to support age discrimination. Students in counselor education programs need to be taught skills that will enable them to provide training and consultation to employers with regard to the older worker (Perlman & Austin, 1987). Sterns and Alexander (1987) stated:

> A great deal more attention needs to be given to multiple transitions that may occur within an individual's working life. This leads to a renewed emphasis on the important role that training and retraining can play in career development. (p. 24)

There is a need for the educating of workers and personnel decision-makers to form more positive attitudes toward the aging worker (Perlman & Austin, 1987).

The researcher in this study sought to determine the perceptual knowledge base of decision-makers with regard to older workers. The data collected could then be used to develop programs in counselor education designed to return the older worker to the work force.

That there is a need for the information obtained in this study is highlighted by the request from the Florida Department of Health and Rehabilitative Services, Aging and Adult Service Office, Tallahassee, to Florida State University to provide a survey of private sector employers. The staff for the 1986 Florida State University study (Hardy, Stutzman, & Imbriani, 1986) sought to provide a data base of information about the elderly that would help not only the Florida Department of Health and Rehabilitative Services, Aging and Adult Service Office, but the Florida Department of Labor and Employment Security also deal with the older worker in the future. At the state level, it was recognized that employment of older workers had been and and will continue to be a pressing concern (Florida Committee on Aging, 1986).

The data provided in this study complement the Florida State University project. A correlational analysis of knowledge held by personnel decision-makers with regard to older workers, perceived obstacles and advantages to retaining and/or hiring older workers held by personnel decision-makers, and the relationships among the advantages and obstacles are included.

Limitations and Delimitations

Several factors might have limited the generalizability of the study. It was confined to the

Greater Orlando Area. However, Orlando shares many of the same characteristics of other metropolitan areas. According to the Kieffer (1984) and Taylor (1987), central Florida more closely reflects the national percentage of older adults than does the State of Florida as a whole.

The sampling method was appropriate for a field study. The questions asked and conclusions drawn were limited to the Facts on Aging Quiz: I (Palmore, 1977) and to questions on the Employing the Older Worker Scale (Sheppard, 1987).

Assumptions

It was assumed that responding subjects answered honestly. It was further assumed that personnel decision-makers reflected the opinions of management with regard to hiring and retaining practices.

Definition of Terms

Terms used throughout this study are defined as follows:

Dependency ratio - the relationship between the number of individuals working and the number of persons needing support in a society.

Incentive - score on the advantage subscale of the Employing the Older Worker Scale.

Knowledge about aging - a score on the Facts on Aging Quiz: I.

Myth - an unproven collective belief that is not critically examined.

Obstacle - score on the obstacle subscale of the Employing the Older Worker Scale.

Older worker - a person currently employed or actively seeking employment, 65 years of age and older.

Personnel decision-maker - employees, personnel managers, or others responsible for the hiring and firing practices in a firm.

Stereotyping - a simplified and standardized conception or image invested with special meaning and held in common by members of a group (Random House Dictionary, 1966).

Work options - flextime, part-time, phased retirement, and extended leave.

CHAPTER 2
REVIEW OF LITERATURE

This chapter is devoted to the historical and current literature relevant to the study. Although the problems of the elderly individual have been researched to an ever increasing degree in the past several decades, the problems associated with hiring practices of personnel decision-makers concerning the older worker have received little attention. This study focused on the perceptions of personnel decision-makers as they translate into obstacles and advantages to employment and the economic and social necessities of employment of the older worker. Research data and information in the existing literature relating to the following areas are included: labor-force demographics; societal demographics; physical, mental, and cognitive status of the elderly worker; the myths and realities of aging with respect to the older worker; the dependency ratio and its meaning to the individual and to the economy; the needs of the older worker; and the needs of the employer and personnel manager.

Demographic Information

The term "demographic imperative" has entered the modern vocabulary in response to the massive growth in the aged population (Maddox, 1986). According to the

Statistical Brief (1986), there were 25,544,133 people 65 years and older in this country and 1,684,972 people 65 years and older in the State of Florida.

By the year 2030, the 65 years and older population will probably jump 27% from 31 million to 52 million people (Kieffer & Flemming, 1980). The number of individuals over the age of 65 will increase 17% by the year 2000 (Kieffer & Flemming, 1980). In 1983, for the first time in history, there were more people age 65 and older than there were teen-agers in this country (Morrison & Barocas, 1984). According to the Aging Society Project staff (Kieffer, 1984), by the year 2025, one out of every three Americans will be over the age of 50.

Life expectancy at birth has increased from 40 years in 1880, to nearly 75 years in 1984. In 1982, an individual who was age 65 could expect to live an additional 17 years. Increased longevity, in combination with the "baby boom," resulted in a projected increase in the 75 years and over population from 5.6 million in 1960 to 25.5 million in the year 2025 (Kieffer, 1984). This age group is the fastest growing group in our country (Kieffer & Flemming, 1980). Increased life expectancy resulted in the naming of a new period in the course of life called the "third quarter," age 50 to 75 (Pifer, 1986). In less than 40 years, every fifth person in the United States will be 65 years or older (Statistical Brief, 1986). From most of today's projections, the third quarter population will consist of individuals enjoying better health, with greater energy reserves, and eager to lead productive lives (Kieffer, 1984) because older people appear to be getting smarter, healthier, and more productive (Perlman & Austin, 1987).

The nationwide statistics are relevant to the population of Florida. Florida's elderly population was growing faster than that of any of the other 49 states (Florida Committee on Aging, 1986). In 1970, there were 985,700 people age 65 years and older in the state. In 1985, there were over 1.7 million individuals 65 years of age and older; there are projected 2.9 million by the year 2000. That number indicates that this group will comprise over 20% of the state's total population (Florida Statistical Abstract, 1985). Individuals 75 years old and over will increase from 5% of the population in 1970 to 9.5% in the year 2000 (Florida Committee on Aging, 1986).

Important aspects of the demographic changes in the United States center around the increase in the number of older workers available for jobs, the aging of the existing work force, and the retirement behavior of older workers relevant to current and proposed legislation (Morris & Bass, 1986; Morrison & Barocas, 1984; Rosen & Jerdee, 1985; Sheppard & Rix, 1977). Florida leaders were encouraged to address these changes and to help supply employment to those individuals wanting to work and able to work (Florida Committee on Aging, 1985).

The number of older people in the population becomes anticipatory of future problems when the structure of the labor force is considered. The structure depends on the number in the population of workers and the percentage of labor force employed (Fullerton, 1984). In 1977, 75% of the men between the ages of 55 and 64 were working. That figure dropped to 70% in 1983 (Kieffer, 1984; Rosow & Zager, 1980).

Managers from Florida Division of Labor, Employment and Training, Bureau of Labor Market Information (1987) have projected that by the year 2000 only 20% of those 55 and over will be working. The U.S. could be faced with the possibility that there will be too few young people entering the labor force to offset the number of older people leaving it (Adamec, 1982; Sheppard & Rix, 1977). The median age of the United States' work force was 34.8 years in 1982. The projections were that it will be 37.3 years in 1995 (Rosen & Jerdee, 1985) and 42 years by 2050 (Statistical Brief, 1986).

The median worker age was increasing while the median retirement age was dropping. The median retirement age in 1963 was 64.3 years; it fell to 61.4 years in 1970 (Sheppard & Rix, 1977). If the standard retirement age becomes 55 years, the labor force participation of individuals age 65 and over could change from 16.3% in 1984 to 11.0% in 1995 (Maddox, 1986).

The literature was mixed concerning retirement and early retirement. Of the people age 65 years and over who were employed, only 12% looked forward to retiring; 73% did not want to retire, and 3% were uncertain. Sixty-two percent never wanted to retire completely (Meier, 1976). Within the 55 through 64 year age group, 42% of those questioned said they looked forward to retiring, but of those questioned 33% were interested in being retrained for a new job (Meier, 1976). There are several implications of a reversal in early retirement age. Labor force participation by the elderly could rise from 33% to 42% by the year 2000 now that the mandatory retirement age is up from age 65 to age 70 (Rosen & Jerdee, 1985).

Physical, Mental, and Cognitive Status

Physical Status

Older individuals enjoy better health than they did in the past and even better health is projected for the future (Morrison & Barocas, 1984; Perham, 1982; Rosow & Zager, 1980; Wantz & Gay, 1981). Better health is accompanied by greater vigor and longevity (Rosow & Zager, 1980). Even heart disease--the major killer of older persons--has shown a substantial decrease. In the United States, heart disease rates began to decline about 30 years ago (Maddox, 1986; Wantz & Gay, 1981).

While there has been a decrease in the incidence of cases of heart disease and tuberculosis, there has been an increase in other chronic diseases, probably due to an increase in life expectancy (Wantz & Gay, 1981). Although older workers are not sick as often as their younger counterparts, their illnesses do require longer sick leaves when they occur (Perham, 1982). According to Perlman and Austin (1987), increased age brings increased risk of illness; but the illnesses do not necessarily require leaving the work place. Seventy-five percent of the people 65 years and over are able to maintain daily living and working routines without limitations (Wantz & Gay, 1981).

It is difficult to use age as the determinant of illness because of personal differences in robustness, differences in lifestyle, and physical fitness (U.S. Department of Labor, 1979). There are great disparities in both abilities and the rate of decline of abilities in the older population (Eisdorfer & Lawton, 1973; Maddox, 1986). The aged are a more diverse group than any other segment of the population (Butler, 1986).

An individual's aging process is dependent on both intrinsic and extrinsic components. Included in the mix of factors are sex, race, personality, employment, income, education, and social attitudes (Wantz & Gay, 1981). People often perceive their health as a function of how their health is viewed by others (Loether, 1967).
Some researchers indicate that individual differences in job performance levels should be evaluated by intrinsic

predictors such as selective attention, perceptual style, and reaction time. Chronological age alone is neither a good predictor of job performance, nor is it sufficient to predict health status (Avolio, Barrett, & Sterns, 1984).

Mental Health Status

Older adults also enjoy better mental health today than they did in the past in spite of the lack of psychological preparation for later life. As a group, the aged are quite successful in negotiating the life changes of older adulthood (Rosow & Zager, 1980; Siassi, Crocetti, & Spiro, 1975; Wantz & Gay, 1981). Older employees in social service jobs reported significantly fewer psychiatric symptoms, more satisfaction with their work, no difference in depression level, and lower stress scores than did their younger compatriots (Rebok, Offerman, Wirtz, & Montagliaone, 1986; Siassi, Crocetti, & Spiro, 1975).

Cognitive Status

Researchers have invalidated the idea of cognitive and personality development ending with the teen-age years (Karuss, 1981). Learning skills appear to decline insignificantly as one ages (U.S. Department of Labor, 1979). Intelligence remains largely constant until at least age 70. Older adults can learn effectively and short-term memory capacity is not seriously affected (Rosow & Zager, 1980).

Older adult difficulty in learning is not usually due to incapacity but rather to stimuli presentation conditions (Birren & Sloane, 1980). Age differences in learning performance can be somewhat improved by--among other things--increased sensory stimulation and distributed practice (Eisendorfer & Lawton, 1973; Sterns & Alexander, 1987).

A possible concomitant of the improved physical status and mental status is the increased level of education in the age 65 and over work force. In 1972, 50% of the mature work force had high school diplomas and 12% had college degrees. In 1982, 70% had high school diplomas and 17% had college degrees. It is expected that by the year 2000, 88% will have high school diplomas and 25% will have college degrees (Morrison & Barocas, 1984).

Continuing education and improvement in health are generally strong indicators of the desire to acquire new skills and participate in the work force (Perlman & Austin, 1987; Sheppard & Rix, 1977). Continued employment not only contributes to the U.S. economy, it also helps to alleviate feelings of uselessness, despondency, and ill health for older individuals (Wantz & Gay, 1981).

Various abilities do decline as individuals age, but not all and not at the same rate. Researchers have not been able to correlate the decline of abilities with work performance. Insufficient credence has been given to the substantial inter-individual differences concerning measured abilities. Researchers have not sufficiently recognized the compensations elderly individuals make that enable them to maintain an acceptable level of performance (U. S. Department of Labor, 1979). Most older people retain an overall capacity for work as long as they maintain good health. Because of greater motivation and experience, they often out-perform younger employees (Rosen & Jerdee, 1985). It can be inferred from data that older employees are functionally able to remain in the work force.

Myths and Realities Concerning Older Workers

The material in this section enables the reader to view the elderly as they are viewed as a result of stereotypical thinking and as a result of research data. Stereotypical thinking on the part of employers and personnel managers (i.e. personnel decision-makers) serves to impede the progress of the elderly workers as they seek to remain in jobs or be rehired (Sheppard & Rix, 1977).

A major problem facing industrial gerontology is the stereotyping of the older worker (Schaie, 1980). Eighty percent of those people polled by Louis Harris and Associates, Inc. (1979), said that they thought most employers discriminated against older individuals, thus making it more difficult for them to find work. In making hiring decisions employers and personnel decision-makers are hesitant to hire older individuals even when confronted with evidence and data that tend to refute stereotypical perceptions (Croft, Doctors, Shkop, & Benecki, 1979). Negative stereotyping of older people has contributed to the decreased number of older workers in the work force. In 1983, only 18% of the 65 and over population were still actively employed (Kieffer, 1983).

There is a surfeit of stereotypes concerning the older worker described in the literature. The primary stereotype is the belief that most people are alike and that chronological age is a reliable indicator of ability (Perlman & Austin, 1987). It is much more accurate to say that the elderly population is probably the most diverse and heterogeneous of any age group (Rosen & Jerdee, 1985).

Another misconception is in the area of absenteeism. In 1985, researchers stated that older employees were believed to be absent from work more often and for longer periods of time than their younger counterparts (National Alliance of Business, 1985). In reality, older workers have attendance records that are as good or better than those of younger workers. Furthermore, they make fewer visits to the medical department (U.S. Department of Labor, 1979). Although older employees are more prone to illnesses which require longer periods of recuperation, their absences from the job because of ill health are more than offset by reduced absences for non-illness related purposes (Schaie, 1980).

Closely related to the myth of excessive absenteeism is the myth regarding accidents. Older workers are viewed as being significantly more accident prone than younger workers (National Alliance of Business, 1985; Rosen & Jerdee, 1985; U.S. Department of Labor, 1979). In actuality, older workers have fewer accidents. The lower accident incidence is particularly true when judgments based on experience and expectation of hazard are required (U.S. Department of Labor, 1979).

As mentioned earlier, physical changes in abilities do occur as one ages. The changes are neither rigidly fixed to certain ages nor are they equal from person to person (Wantz & Gay, 1981). For example, many aspects of vision--depth perception, color perception, visual acuity, and sensitivity to light--decline with age. Hearing acuity also declines. Furthermore, there is a slowing of sensor-motor performance.

Eighty-five percent of people over 65 years do indeed suffer from one or more chronic problems, but 75% have conditions which are controlled by medical treatment. Over 50% of the 65 plus population are able to maintain their daily living routines without limitations of any kind (Sonnenfeld, 1983; Wantz & Gay, 1981). Despite the proof to the contrary, personnel managers perceive a single health problem as more serious and disabling for older employees than for younger workers (Rosen, Jerdee & Lunn, 1980).

The cognitive aspects of aging are likewise susceptible to stereotypical thinking. The literature is replete with descriptions of such myths as diminished learning capacity, reduced intelligence, lost memory, decreased motivation, increased rigidity, personality changes for the worse, and the futility of retraining (Schaie, 1980; U.S. Department of Labor, 1979; Withers, 1974). Researchers state there is little change in learning capacity; intelligence remains constant for most persons until at least age 70; most cognitive functions increase up to age 50 with some slightly declining by age 60.

Verbal skills increase between 50 years and 60 years, verbal reasoning shows minimal loss with age, and memory skills can be improved well into old age (National Alliance of Business, 1985; Sonnenfeld, 1983; Stagner, 1971; Wantz & Gay, 1981). There is some truth to the belief that short-term memory lags with age, but various techniques can be used to offset this disability (Sonnenfeld, 1983).

The older worker is variously described by the general population as less productive, slower, less adaptable, unwilling to adopt new work habits and methods, less ambitious, more opinionated, temperamental, irritable, and more likely to quit than younger workers (Rosen & Jerdee, 1985; Schaie, 1980; Stagner, 1971; Wantz & Gay, 1981; Withers, 1974). Objective researchers have not agreed. The older worker is actually more likely to remain with a company than the employee who is aged 20 to 30. Older workers exhibit more job satisfaction and less stress on the job (National Alliance of Business, 1985). There is preponderant evidence that older employees exhibit not only higher morale but have a greater sense of organizational commitment than young employees (Rosen & Jerdee, 1985).

Older workers appear to be more dependable than younger workers (Rosen & Jerdee, 1985) with a steadier rate of output and a higher work volume (U.S. Department of Labor, 1979). Although there is no consistent proof of superior productivity in any one age group, it appears to depend on the individual and the job (Sonnenfeld, 1983; Withers, 1974). Differences in performance and capacity are usually correlated with intelligence, interests, needs, and career goals, not with age (Kalish, 1982).

The technical nature of many of today's jobs increases the possibility of skills obsolescence among the older population (Andrisani & Daymont, 1983). Therefore, the myth that the older employee is difficult to retrain discourages employers from considering older workers for new positions that need additional training (Rosen & Jerdee, 1985). The older worker is left with unmarketable skills and little hope of being offered the chance to learn new ones.

Yet researchers argue that older people can be retrained as readily as younger individuals when the methods used are suitable to them (Withers, 1974). Problem solving is more related to education and flexibility than age (Sonnenfeld, 1983). The argument that older people are interested in learning is further supported by the fact that in 1985 about 1.7 million people 65 and over were enrolled in institutions of higher learning (Rosen & Jerdee, 1985).

Education and training serve to dispel myths. According to the results of two studies (Holtzman & Beck, 1979; Palmore, 1980), college faculty scored higher than graduate school participants, college graduates, or high school students when given the Facts on Aging Quiz: I. Even with this group misconceptions occur with regard to absenteeism, illness, accidents, mental and physical ability, performance capacity, and personality. The impact of misconceptions is summed up by Rosen and Jerdee (1985):

> Business decisions based on stereotypical assumptions about various categories of employees can prove erroneous and costly, impairing self-esteem, impeding career progress, and resulting in an under utilization of human resources. (p. 17)

One can conclude in this section that myths concerning the older worker are largely supported by stereotypical thinking. Stereotyping has had negative effects on older worker hiring practices.

Dependency Ratio

The importance of the dependency ratio to the overall economy is agreed upon by various authors who have seen it as a vital issue (Ethel Percey Andrus Gerontology Center, 1980; Harris, 1986; Sheppard & Rix, 1977). Less than 50 years after social security legislation was enacted in 1935, two-fifths of those people polled by Louis Harris and Associates, Inc. (1979) had no confidence that the system would be able to pay them the benefits they had earned. The dependency burden is threatening to erode the system of payment benefits that was initially begun as a solution for problems quite different from those in existence in later years (Perlman & Austin, 1987; Sheppard & Rix, 1977).

According to Wallfesh (1978), the Social Security Act was passed in 1935 when 25% of the labor force was unemployed. A major goal was to remove older people from the work place and provide at least one source of income for their retirement. Continuing to outline the history of retirement benefits from the 1930s to the 1960s, Wallfesh noted that private pension plans came about during the war years as a more attractive alternative to industry than pay increases. Wage control and excess profits legislation made pay increases difficult to justify.

A recession after the Korean action in the 1950s made labor cutbacks necessary. Industry leaders worked with labor union leaders to make room for younger workers; consequently, early retirement and liberalized pension benefits became topics for bargaining. The result has unalterably changed the demographics of the dependency burden. In 1935 there were 10 workers to each nonworker; in 1980 there were 2.5 workers to each non-worker. (Fullerton, 1984; Kieffer & Flemming, 1980; Morrison & Barocas, 1984). The numbers have changed from 1900. Then 63.1% of those individuals 65 years or older were in the work force; in 1970 26.8%; and in 1978 20.5% (Kieffer & Flemming, 1980).

The dependency burden is further affected by the changing age structure of the American population. During most of the nation's history, the population has been young. Life expectancy for people born in 1900 was under 48 years. In 1980 a 65-year-old individual could probably look forward to 17 more years of life (Kieffer & Flemming, 1980). It seems that life expectancy at the age of entitlement has not only increased but the number of years of the increase have swelled (Fullerton, 1984).

Since the older population will increase as a proportion of the total population, the percentage of people over the age of 50 has been predicted to increase from 25.7% to 37.7% between the years 1980 and 2025. (These percentages translate into 113.4 million individuals as opposed to 58.8 million.) People over the age of 75 years will increase from 5.6 million to 25 million in the year 2025; an increase of 356% (Kieffer, 1983).

Against the backdrop of the projected increase in the numbers of older people living longer, there has been a steady decline in the labor force participation among older people (Sheppard & Rix, 1977). Fullerton (1984) projected that by the year 2000, 80% of those 55 years and older will be out of the labor force. Another projection, cited by Cowan (1982), was that the retired worker to employed worker percentage would change from 14.3% in 1979 to 25.1% in 2025.

Numerous strategies have been employed to encourage the older worker to leave the work force. Among these are increasing social security benefits, expanded public and private pensions, successive improvements in retirement benefits, early retirement eligibility, and industry encouragement. These strategies have been successful. Research indicates that approximately 18% of men age 65 years and older still remained in the work force in 1983 (Kieffer, 1983). The median retirement age for employees in U. S. Civil Service positions dropped from 64.3 years in 1963, to 61.4 years in 1973 (Louis Harris and Associates, Inc., 1979). Harold Sheppard, a leading authority in the field of industrial gerontology, predicted that in the not too distant future 55 years will be the normal retirement age (Sheppard & Rix, 1977).

Early retirement is encouraged by society and employees respond when they are in unsatisfactory jobs, are plagued with illness, or have sufficient retirement benefits relative to possible earnings (U.S. Department of Labor, 1979). But early retirement worsens the dependency ratio in various ways. Not only is the gross national product (GNP) reduced, but foregone earnings result in decreased revenues to the social security system. Retirement age is one of the crucial variables in the future dependency costs (Rosow & Zager, 1980; Sheppard & Rix, 1977; U.S. Department of Labor, 1979).

The cost of worker retirement to private industry, according to Sheppard & Rix (1977), is naturally greater when retirement payments begin at 55 or 60 years of age instead of 65 or 70 years. That public pensions cost more also is seen in New York city's example. The cost to the city for public retirees' benefits doubled in the period from 1978 to 1983 (Morrison & Barocas, 1984).

The dependency burden is worsened by still another phenomenon. Increasing numbers of younger workers are electing to remain in school for longer periods of time (Sheppard & Rix, 1977). If predictions hold true, 51 to 62% of those individuals between the ages of 18 and 21 years will probably be enrolled in school in the year 2000. In 1970 40% were in school. The implication of these figures is that regular entry into the labor force will be postponed, adding to the total number of dependents in the population (Ethel Percey Andrus Gerontology Center, 1980; Sheppard & Rix, 1977).

The U.S. Social Security system covers approximately 90% of all United States workers. Almost 17.6 million Americans, excluding wives, husbands, and survivors of eligible workers, collect social security worker benefits. An additional 2.1 million persons 65 years and over are receiving U. S. Social Security Supplemental Income. Six million older individuals receive benefits from private pensions (Subcommittee on Retirement Income and Employment, Select Committee on Aging, 1984).

Sheppard and Rix (1977) have asked if the working population will be willing to continue to support this vast number of retirees. According to the authors, the answer could depend on inflation and a decline in the standard of living. Disposable income decreased between 1972 and 1974 to a level below that of 1965. A disparity now exists between the needs of the retired population and the amount paid into the social security system by the working population (National Alliance of Business, 1985).

In summary, the dependency ratio rests on various developments and factors. Among these factors are trends in labor-force participation and work experience, the precarious situation of private and public pension funds, concern over the solvency of social security, an increase in life expectancy after retirement, and greater relative costs of supporting older retirees versus younger nonworkers (National Alliance of Business, 1985; Sheppard & Rix, 1977; U.S. Department of Labor, 1979).

There is ambivalence in national attitudes toward the older worker. Some see economic sense in giving younger people more job opportunities by moving older individuals out of the work force. Others see extremely serious economic and social ramifications--plus loss of talent--that could be critical to the productive capacity of the economy (Kieffer, 1983). Although ambivalence exists, most economists agree that the ratio of worker to retiree will have to change if both segments of the population are to enjoy good economic health (Perlman & Austin, 1987).

Needs of Older Workers

Little can be accomplished in regard to the employment and re-employment of the older worker until more is known about the variety of needs that exist for that particular group (Beckmann-Koenig, 1981). If availability for work is a manifestation of need for employment, conclusions drawn from social security's retirement history of 1969, 1971, and 1973 would, at least, point to the number of persons who were willing to re-enter the labor market (cited in Motley, 1978). Motley (1978) further concluded that not more than 22% of the people investigated would be very likely or even able to return to work, 14% would not be available, and 24% were ambivalent. The implications from these findings were that changes in the social security earnings test and removal of mandatory retirement might impact favorably on those retired people who preferred to work or who needed more income, but would have little effect on the majority of retired people (Motley, 1978).

Older people sometimes remain employed or return to work for other than remuneration (Kieffer, 1984). Perlman and Austin (1987) explained the "retirement mystique" by saying that older people want to work, not only for the income, but because it allows them to contribute to the welfare of others. It fulfills a basic emotional need to be recognized and to maintain a sense of responsibility and worth. Workers are able, through their own industry, to indicate a concern for their fellow man and to be a component of and vital to their social system (Ethel Percey Andrus Gerontology Center, 1980).

Reasons for working have been further addressed in the literature. High on the list of reasons is the eroding of fixed incomes by inflation (Fillenbaum & Maddox, 1974; Harris, 1986; Marlowe, 1987; Rosow & Zager, 1980; Sheppard & Rix, 1977; U.S. Department of Labor, 1979; Withers, 1974). Rosow and Zager (1980) also cited the psychosocial need that work fulfills when older people use their jobs to maintain social contacts. Fillenbaum and Maddox (1974) listed five functions that work serves to meet: income, identification, regulation of life activities, associates, and meaningful life experience. The decision to work is affected by economic needs, social needs, personal ambitions, previous experience, and desire to try new things (Birren & Schaie, 1977; Meier, 1976; Perlman & Austin, 1987; Sheppard & Rix, 1977).

As documented earlier, health gains that enable older people to enjoy longer, relatively pain free lives, plus increased vigor and energy levels make the continuation of work an attractive option to idleness (Rosow & Zager, 1980). However, health, both physical and mental,must be treated as as something affected by the experience of work itself. Ill health could possibly result from retirement. There is a direct relationship between enforced idleness and poor health (Bacon, 1987; Goudy, Powers, & Keith, 1975; Kidwel, 1987; Poore, 1986).

Although ill health was sometimes the reason why an older individual chose to cease working, other reasons cited included the desire to leave an unsatisfactory job, the wish to have greater leisure time, and the calculation that retirement income may approximate take home earnings (Perlman & Austin, 1987; Sheppard & Rix, 1977; U.S. Department of Labor, 1979).

Retired men available for work were twice as likely to have retired because they had no alternative (Motley, 1978). In a 1978 study using data drawn from the social security administration retirement history study (cited in

Motley, 1978) and gathered between 1969 and 1973, Motley mentioned the number of people who were available to work. He concluded that, surprisingly, persons who retired at age 65 were available for work no more frequently than were early retirees; 22% of retirees would be very likely to return to work; 14% would not be available; and 24% were ambivalent. Other researchers have drawn a profile of the older individual likely to want to work. The profile included a positive attitude toward work, planning for retirement, being well-educated, hesitant about retirement, favoring a flexible retirement age, and viewing idleness as retirement's greatest problem (Fillenbaum & Maddox, 1974; Kalish, 1982; Meier, 1976; Skoglund, 1979).

Those who want to work are more social than those who do not want to work. Those workers who want to continue in the labor force have reasons that are both complex and interacting. They feel that work gives meaning to their lives in addition to economic independence (Goudy & Powers, 1975). The conclusion is very similar to that drawn by Skoglund (1979). Skoglund stated that work after retirement correlates with the view of independence held by the majority of older workers. Furthermore, people want to work for reasons that include fear of boredom and lack of pre-retirement training (Hanlon, 1986; Karuss, 1981; Schaie, 1980). There are even some who some never consider retiring, regardless of financial condition.

There was a link between work and high self-esteem (Hanlon, 1986; Skoglund, 1979).

Older worker needs are affected by the changing job market. Often a slowdown in the economy results in the reduction of the work force or, possibly, a reorganization to save money. Many jobs may be eliminated or radically changed by technologies, while others are overshadowed by international competitors (National Alliance of Business, 1985). Such changes greatly concern the older worker who is so well represented in traditional occupations. For these reasons, education, training, self-marketing, and placement are high on the list of older worker needs (Perlman & Austin, 1987; Sheppard & Rix, 1977; U.S. Department of Labor, 1979; Withers, 1974). Meier (1976) found that over one-sixth of the workers 65 years of age or older were between "very interested" and "somewhat interested" in being retrained for other positions. As if anticipating future problems, over one-half of the people 40 to 56 years of age who were polled by Louis Harris and Associates, Inc. (1979) indicated that they were very interested in job training programs.

Bird (1988) stated that older people want to work. In a national survey of retired persons, 41% were sorry they had retired. Of those still working, 75% wanted to continue working and 31% of the people over age 65 said they would like to have jobs. Policies that conform to older worker needs are vital to remediating the problems of that subset of the population (Kieffer, 1984). The policies include alternative work schedules, elimination of mandatory retirement rules, redesigning jobs, job transfer, and variety in job structure (Beckmann-Koenig, 1981; Kahn, 1984; Morrison & Barocas, 1984; National Alliance of Business, 1985).

Older workers are interested in innovative job opportunities, especially if they do not displace younger workers (Stagner, 1971). In a study evaluating alternatives, Paul (1983) determined that one reason older people did not avail themselves of alternatives was a fear of disturbing the status quo. Other reasons included low levels of management communication as to the availability of the options, reduction in salary, the social security earning test, and the 1974 U.S. Employee Retirement Income Stabilization Act (ERISA) benefit suspension provisions.

In summary, researchers have reported older workers' needs include equal opportunity with other age groups for training and development, flexible work patterns, equitable benefits, revision of the social security earnings test, and no penalties for continuance of work. Solutions to worker needs are, of necessity, linked to the solution to employers' needs with salubrious effects for both (Gersuny, 1987; Perlman & Austin, 1987; Sheppard & Rix, 1977).

Needs of Employers

Important questions must be addressed by policy makers and researchers about the impact of changes to the current work/retirement situation. What will society do when there are not enough jobs to go around? Are present retirement patterns effective from the perspective of the business community and the economy? Would an improved economy require that an increased number of mature workers be available (Coberly, Bentsen, & Klinger, 1983; Kieffer, 1983)? Is there significant correlation between employment and retirement decisions? If so, does the aging population and work force require an alteration of judgments concerning this relationship (Morrison & Barocas, 1984)? In attempting to answer these questions, it is assumed that policies will not require employers to pay additional costs for rehiring or retaining older employees (Florida Committee on Aging, 1986).

The trend to early retirement has potentially catastrophic effects on the economy (Perlman & Austin, 1987; Sheppard & Rix, 1977). Industry leaders, however, see a positive side to early retirement (Cain, 1982). Cain (1982) claimed that industry leaders encourage early retirement to diminish the work force to cut payroll and benefit costs, to revitalize the work force to meet the needs of new technologies, and to create career opportunities for younger employees. Other advantages to early retirement mentioned in the literature include the opportunity to automate (an attractive alternative to layoffs) and reduction of redundancies due to overstaffing (Kieffer, 1984; Gollub, 1983; Paul, 1983).

However, early retirement is not without its drawbacks for employers. The practice often adds to a company's funded retirement costs. The policy could also involve the loss of valuable personnel when key employees choose the option. New replacement employees must be trained. Training is expensive, as is the potential disruption to production as a result of hiring new untrained employees (Greenberg, 1983; Subcommittee on Retirement Income and Employment, Select Committee on Aging, 1984).

Perhaps the "bottom line" is that the cost of early retirement will have to be built into the product or service, making it less competitive to foreign markets. The expense will also come from periodic increases in payroll taxes if the integrity of social security is to be assured (Kieffer & Flemming, 1980). Foreign competition forces industry leaders in this country to lower costs of manufacture in order to sell products that equal foreign goods in both quality and price. This gives some employers ample reason to focus on the on the cost of labor's relationship to the cost of goods and services (Florida Committee on Aging, 1985).

Another important aspect of early retirement is the possibility that it might further decrease the labor pool available in the future when business and industry might need the services of the older employee (U. S. Department of Labor, 1979). According to Salisbury, Executive Director of the Employee Benefits Research Institute in Washington, D.C., it has been estimated that the rate of labor force growth will slow down to approximately 1% per year between 1980 and 1990 (cited in Cain, 1982).

Ignoring the future for a moment, there are currently a number of reasons for rehiring or retaining the older worker. Older workers are a valuable and often untapped resource with specialized skills filling a void in a changing labor market (Pepper, 1982). The fast food industry is already tapping into a much needed pool of part-time older workers (Perham, 1982). Older employees add to the stability of organizations while acting as role models for younger employees (National Alliance of Business, 1985).

Older workers enhance positive company images; this is the reason insurance companies are hiring back retirees (Perham, 1982). Added to the above, older people seem best able to attract older customers who comprise almost one-fourth of the buying public. It is in industry leaders' best interest to be responsive to the needs of older workers (National Alliance of Business, 1985; Perlman & Austin, 1987).

Obstacles and Advantages

Previous data notwithstanding, some employers and personnel managers are beginning to be interested in employing older workers (Perlman & Austin, 1987). Incentives in the form of tax credits seem to influence positively some employers to hire older workers (Coberly, 1983).

The researcher in this study addressed, in part, those obstacles that stand in the way of employing and retaining older workers. One obstacle is that older people are usually at the zenith of their earning power when compared to younger replacements (Andrisani & Daymont, 1983). A second obstacle is that medical and life insurance benefits are more costly for older workers (Florida Committee on Aging, 1985). Because of U.S. Tax Equity and Fiscal Responsibility Act (TEFRA) of 1983 (cited in Florida Committee on Aging, 1985), company leaders are mandated to continue company coverage for employees from age 65 through 69 years, instead of opting to have them covered by Medicare.

Legislation exists that requires that benefit plans be nondiscriminatory as to age and that employers must continue benefits for employee through age 69. Life insurance coverage must also continue (though benefits may be reduced at age 69) (Florida Committee on Aging, 1986). This legislation serves to reduce employment opportunities for older workers by increasing costs to the employer (Anderson, Kennell, & Sheils, 1983).

Some experts have agreed that the productive capacity of the economy will be curbed if older people, especially in vital positions, leave the labor force in large numbers (Davis, 1980). Thus, employers have been urged to consider the advantages of utilizing the older worker (Gollub, 1983).

Among the advantages listed in the literature were the lowering of the cost of pension plans as retirement age rises, older workers possessing specialized expertise not found in younger workers (e.g., good attendance and punctuality, commitment to quality, loyalty and dedication to company, emotional stability), and lower turnover rates for older workers (Rappaport, 1978; Yankelovich, Skelly, & White, Inc. 1985). High turnover rates are costly to employers in terms of poor performance during the termination stage, the expense of training new employees, lower productivity during training, and the cost of relocation, (Florida Committee on Aging, 1985).

Other advantages to personnel decision-makers and to employees are the much written about work alternatives (Paul, 1983; Sheppard & Rix 1977; Sherwood, 1982; U.S. Department of Labor, 1979). Employers can utilize work alternatives in an effort to encourage the retention of retirement age employees. The advantage to employers to use the part-time work option is its relatively low-cost use of productive and trained workers (Paul, 1983).

Sherwood (1982) pointed out, though, that some company leaders do not see the advantage of alternative work options. They claim that start-up costs are high and there is not enough added value to older workers to use them. Morrison and Barocas (1984) cited a 1979 survey in which it was found that only 17% of the employers polled used flextime, 19% used part-time workers, and 7% had some form of phased retirement. Work options were just too costly to employers, according to the employers polled in this survey. Needed to make work alternatives cost effective are organizational surveys of older workers' preferences and needs, organizational assessments of costs and benefits, and government advantages for employers and employees to try work options as well as the education of personnel decision-makers (Morrison & Barocas, 1984). Ideally, the goal should be a retirement system that is more neutral with regard to retirement age advantages and that reduces obstacles to continued participation in the work force (Morrison & Barocas, 1984).

The literature included pragmatic recommendations that would serve advantages to employers and personnel decision-makers to the hiring and retaining of older workers. The Special Committee on Aging of the U.S. Senate (1984) recommended that flexible benefits be instituted. Recommendations by the National Alliance of

Business (1985) included the following:

1. training managers on age factors,
2. adopting life-span career planning,
3. hiring of retirees (without benefits) on part-time basis,
4. permitting continued employment without pension accrual,
5. allowing retirees to collect benefits when working,
6. guaranteeing training and retraining for technical obsolescence,
7. retraining for new jobs, and
8. phasing in retirement.

Gollub (1983) summarized the needs of employers and personnel decision-makers by categorically calling for changes in laws affecting older worker benefits, elimination of mandatory retirement requirements, tax policy changes, program innovation, administrative reform, and encouragement of private and public collaboration.

CHAPTER 3
METHODOLOGY

This chapter contains a description of the methodology by which the data were collected, a description of the sample, instrumentation, pilot study, procedures, and data analyses.

The Method

An exploratory and descriptive approach by survey research was selected as the method for data collection. The method used was mailed questionnaires; one was Palmore's Facts on Aging Quiz: I (1977) (Appendix D). The other questionnaire was Employing the Older Worker Scale (Sheppard, 1987) (Appendix D).

Survey research is a useful tool for fact finding since it has the capability of amassing a great deal of information. When a sample is randomly selected in survey research, the data can be interpreted to be an accurate representation of the whole population (Isaac & Michael, 1982; Kerlinger, 1973; Van Dalen, 1973). Results compiled from survey instruments administered to randomly selected samples are often comparable to those results obtained from a study of whole populations. The cost is usually less, efficiency is greater, and sometimes there is greater accuracy (Kerlinger, 1973).

The scientific nature of this survey is defined by the nature of the variables chosen (Isaac & Michael, 1982). Variables can be classified as facts, opinions, attitudes, and behaviors. The variables are also classified by the manner in which the data are collected; these include face-to-face interviews, mailed questionnaires, panel interviews, telephone interviews, and controlled observations (Kerlinger, 1973). Questionnaires, although less accurate than face-to-face interviews, are the least expensive and most expeditious way of gathering data (Kerlinger, 1973).

The descriptive method is considered the practice of choice when research is used to describe a situation or area of interest factually and accurately (Isaac & Michael, 1982; Kerlinger, 1973; Van Dalen, 1973). According to Van Dalen (1973), "before much progress can be made in solving problems, man must possess descriptions of the phenomenon with which they work" (p. 193). Descriptive methods that employ questionnaires are widely used in behavioral research.

The Sample

The population from which the sample for this research was drawn came from Florida firms listed in the Greater Orlando Chamber of Commerce's 1986-1987 Buyers Guide and Membership Directory. The directory included over 3000 manufacturing and service-related firms located throughout the Greater Orlando Area (i.e. Orange, Osceola, and Seminole counties). The targeted population for this research was personnel decision-makers for firms listed in the directory. These personnel decision-makers had several titles including owner, president, vice president, and manager. They made decisions which affected more than 80,000 employees (Florida Statistical Abstract, 1985).

A table of random numbers was used to select the sample firms. To ensure proper representation of type of firm (i.e., manufacturing or service-related), a categorized listing of firms was secured from Florida's Division of Labor, Employment and Training, Bureau of Labor Market Information (1987). From the listing it was determined that the selected sample was representative. The person most responsible for hiring and firing decisions in each selected firm was asked to complete the survey.

Twenty-five subjects were randomly selected to comprise the sample for the pilot study. Two hundred subjects were randomly selected for the final study.

Instrumentation

Data cited in earlier sections of this study report lead to the conclusion that there are many stereotypical images of the aged. Miller and Dodder (1980) noted that several methods have been used to study stereotyping. The authors pointed out that Tuckman and

Lorge utilized a list of statements to which subjects were asked to agree or disagree (cited in Miller & Dodder, 1980). Palmore (1977) developed an agreement-disagreement instrument entitled Facts on Aging Quiz: I [FOA:I] that is still widely used today. This instrument covers the physical, psychological, and demographic aspects of aging. It is also used for identifying misconceptions and anti-aged or pro-aged bias (Klemmack, 1978). The Facts on Aging Quiz: I was used in this study (Appendix D).

According to Palmore (1981), FOA:I is the only published test of knowledge about aging that is both short and has documented support in research findings. Earlier, Palmore (1980) wrote that scales devised by Tuckman and Lorge and Golde and Kogen were either too long, confused attitudinal statements with factual statements, or had undocumented statements.

Palmore (1981) further suggested several uses for the FOA:I, including the identification of the most frequently held misconceptions about aging and the indirect measurement of bias toward the aged. To validate the quiz as a measure of knowledge, a study was conducted to determine if there was a significant difference among health care students, nurses, dental assistants, technicians, and others.

Chi square analysis was used on the occupational groups' responses for each item. Significant differences emerged at the .05 level among groups on 19 of 25 items

(Holtzman & Beck, 1979). Reliability, test-retest, was determined to be from .50 to .80 between FOA:I and a later edition of the instrument, known as Facts on Aging Quiz: II (Palmore, 1981).

In order to determine those issues considered to be obstacles and advantages to hiring or retaining older workers, the second instrument, the Employing the Older Worker Scale (Sheppard, 1987) was used in this research. The instrument included a Likert scale for response rankings. Likert scales have been one of the most widely and successfully used techniques to determine attitudes according to Ary, Jacobs, and Razavieh (1985). Face validity was judged by Sheppard (1987) to be good. Reliability of the instrument, determined by the split-half method, was .87.

Sheppard assigned the following values to the Likert scale: strongly agree = 5 points, agree = 4 points, undecided = 3 points, disagree = 2 points, and strongly disagree = 1 point. These point values were used as appropriate in the data analyses.

Pilot Study

Rationale

A pilot study was conducted to determine the adequacy of Employing the Older Worker Scale (EOWS) in an attempt to determine if there were other issues that needed to be included. It was also used to assess a recruitment strategy for subjects (e.g., phone calls to potential respondents before mail-out) in preparation for the final study. Finally, it was used to verify if the procedure for data collection was likely to be successful.

Procedure

A sample of personnel decision-makers from greater Orlando firms were randomly selected from the 1986-1987 Buyers Guide and Membership Directory of the Greater Orlando Chamber of Commerce using a table of random numbers. Using this sample of perspective respondents, telephone calls were made until 25 personnel decision-makers agreed to be part of the pilot study. A script was used for the initial telephone call (Appendix A). Less than 50 calls were necessary to obtain the required number of respondents; therefore, the content of the telephone message was not changed.

A cover letter (Appendix B) and the two survey instruments (Appendix D) were then sent to those personnel decision-makers who agreed to be subjects in the pilot study. The cover letter and a self-addressed, return envelope were included to encourage and expedite return of the instruments. A follow-up letter (Appendix C) was sent after the second week to respondents who had not returned the instruments.

The time allotted for return of the instruments in the pilot study was 2 weeks. The return of 23 completed instruments from the 25 personnel decision-makers agreeing to participate was the basis for concluding that additional recruitment strategies were not needed.

The format of the obstacle and advantage instrument (EOWS) was designed to encourage listing additional issues not addressed in the pilot instrument. However, no additional advantages and obstacles to employment of older workers were added by the respondents; therefore, no modification of the instrument was made.

Research Procedures

The final study was conducted in a manner similar to the pilot study. The sample of 200 firms was identified from the Greater Orlando Area Chamber of Commerce's 1986-1987 Buyers Guide and Membership Directory using a random table of numbers. Personnel decision-makers from the firms selected were called, using the prepared script, until 150 personnel decision-makers agreed to participate in the study. (Firms called did not include those called for the pilot study.) The instruments, along with the cover letter, were mailed to the personnel decision-makers. An additional telephone call was made if no response had occurred 2 weeks following the mailing. The survey instruments were included again with the follow-up letter. Another stamped, self-addressed, return envelope was also enclosed.

One hundred and one personnel decision-makers returned the instruments following the first mail-out. Fifteen additional returns were received after the second telephone call and second mail-out. Therefore, 116 was the total number of respondents in the study, a 77% rate of return.

Data Analyses

The Microstat computer package was used to analyze the data collected from the study. In order to identify subgroups for comparison, the total sample was divided into three groups based on the proportion of older workers in a particular firm. In the total of the responding sample, 49.14% of the firms employed no older workers. These firms were designated as Group 1. The remaining firms were then divided at the median. This division resulted in Group 2 (24.13%) which included those which had .001 through 5% older workers, and Group 3 which included those firms which had more than 5% older workers.

To answer Research Question 1 (What is the level of personnel decision-makers' knowledge about the myths and realities of aging?), Question 2 (To what degree do personnel decision-makers perceive selected issues to be obstacles to retaining older workers?), Question 3 (To what degree do personnel decision-makers perceive selected issues to be obstacles to hiring older workers?), Question 4 (To what degree do personnel decision-makers perceive selected issues to be advantages to retaining older workers?), and Question 5 (To what degree do personnel decision-makers perceive selected issues to be advantages to hiring older workers?) frequencies were tabulated. A correlation (Pearson r) was conducted to answer Research Question 6 (What is the relationship between decision-makers' knowledge about aging and their level of responses to obstacles to hiring and retaining older workers?), Question 7 (What is the relationship between personnel-decision makers' knowledge about aging and their level of response to the advantages to hiring and retaining older workers?), and Question 8 (What is the relationship between personnel decision-maker knowledge about aging and the percent of older workers in a firm?).

An ANOVA was used to determine if there was a significant difference among the means of the three groups in order to answer Research Question 2 in conjunction with Question 9, (When the responses of the personnel decision-makers to the items on the Employing the Older Worker Scale are categorized according to proportions of older workers employed in the firms of the decision-makers, are there differences ($p = .05$) in (a) item means and (b) the means of selected subsets of items?), Question 3 in conjunction with Question 9, Question 4 in conjunction with Question 9, and Question 5 in conjunction with Question 9.

Question 10 (When the total scores of the personnel decision-makers on the Facts on Aging Quiz: I are categorized according to the proportion of older workers employed in the firms of the decision makers, is there a difference (p = .05)?) was answered by summing the correct answers to the Facts on Aging Quiz: I to obtain total scores for the personnel decision-makers. An ANOVA was used to determine the significance of group differences on the total scores.

The Bonferroni t was used as a post-hoc test in an attempt to detect differences between pairs of means when ANOVA results indicated a significant difference (p = .05) existed. The Bonferroni t was used because it is a method for holding constant the error level to p = .05 when multiple statistical tests on the same data are performed. It is also considered to be a more conservative comparison of the means (Keppel, 1982).

CHAPTER 4
RESULTS

The data in this study were analyzed according to the methods described in Chapter 3. The results are presented with regard to each of the research questions. The results of Research Question 1 were analyzed in terms of the percent of personnel decision-makers correctly or incorrectly answering each question on Palmore's (1977) Facts on Aging Quiz: I (FOA:I). Research Questions 2 through 5 were analyzed in conjunction with Research Question 9 are described by first listing the response selected by the highest percent of the sample, and continued in descending order. Question 10 was answered by summing the correct answers to the FOA:I to obtain total scores for personnel decision-makers. An ANOVA was used to determine the significance of the group differences on the total scores.

Instrument scores were analyzed by comparing them to the means of firms which had no older workers, some older workers, and many older workers. Firms with no older workers comprised Group 1. Firms which had from .001% through 5% older workers comprised Group 2. Firms which had more than 5% (many older workers) comprised Group 3. The groups were divided in the following manner: Group 1 =

49.14%, Group 2 = 24.13%, and Group 3 the remainder. As mentioned in Chapter 3, it was inferred from the data that this was a natural division for the three groups (see Appendix E).

Selection of Sample

The firms in the study were randomly selected from those listed with the Greater Orlando 1986-1987 Membership Directory and Buyers Guide (Greater Orlando Chamber of Commerce). A total of 150 personnel decision-makers from these firms were contacted and asked to be part of the study, and 116 persons responded.

Type of Firm

Firms were classified as either manufacturing or service oriented. Personnel decision-makers from 100 service firms, 15 manufacturing firms, and 1 who omitted the firm type comprised the make-up of the survey. This distribution approximated the existing ratio of service to manufacturing firms in the Greater Orlando area. (According to Monroe (1987), manufacturing firms in the area had 11.4% of the employment market share.)

Size of Firm

The size of firms in the sample ranged from 1 employee through 1,225; however, the majority of firms employed 75 persons or less. Forty percent of the firms in the sample had 1-25 employees, 21% of the firms had 26-

50 employees, 11% had from 51-100 employees, and 25% had over 100 employees (see Table 1).

Number and Percent of Older Workers

The number of older employees in the firms researched ranged from 0 through 634 with a mean of 10.37 and a standard deviation of 60.61. Almost half (49.14%, 57 firms), had no older workers; 21 firms (18.10%) had 1 employee 65 years of age or older; 7 firms (6.03%) had 3 workers; and 2 firms (1.72%) had 4, 12, 14, and 35 older workers each (see Table 2).

Personnel Decision-Makers' Age

As shown in Table 3, about 28% of the personnel decision-makers were from 24 to 35 years of age (young), over 36% of the personnel decision-makers were from 35 through 44 years of age (mature), almost 32% were from age 45 to 65 (middle-aged), and about 2% were 65 years of age or over (old). The mean age was 41.87 and the standard deviation was 11.17.

It can be observed from Table 3 that the largest number of personnel decision-makers were from 35 to 45 years of age (36.21%), the smallest number was age 65 or over (1.72%), and 82.76% were between 24 and 55 years of age.

Table 1

Number of Employees in a Firm

Number of Employees	Number of Firms
1-25	46
26-50	24
51-75	11
76-100	2
101-125	4
126-150	4
151-175	2
176-200	0
201-225	4
226-250	0
251-275	3
276-300	1
301-325	0
326-350	0
351-375	1
376-400	0
401-425	3
426-1225	7
No Response	4
Total	116

Table 2

Number of Older Workers in a Firm

Number of Older Workers	Number of Firms	Percent of Firms
0	57	49.14
1	21	18.10
3	7	6.03
4	2	1.72
7	1	.86
9	1	.86
10	4	3.45
12	2	1.72
13	1	.86
14	2	1.72
16	1	.86
28	1	.86
35	2	1.72
80	1	.86
87	1	.86
634	1	.86
No Response	11	9.48
Total	116	99.96%

Table 3

Ages of Personnel Decision-Makers

Age (years)	Number	Percent
24 - 34	32	27.59
35 - 44	42	36.21
45 - 54	22	18.97
55 - 64	15	12.93
65 - over	2	1.72
No Response	3	2.59
Total	116	100.01

Number of Years Personnel Decision-Makers Filled Position

It can be observed from Table 4 that the range for the number of years personnel decision-makers had been in their present position was from 1 through 40 years with a mean of 7.21 and a standard deviation of 7.26. The largest number of personnel decision-makers, 17 (14.65%), had held their present jobs for only 1 year. Over half (56.9%) had been a personnel decision-maker from 1 through 5 years, 21 personnel decision-makers (18.10%) had been in their jobs from 6 through 10 years, 16 (13.81%) had been in their positions from 11 through 15 years, and 10 (8.61%) of the personnel decision-makers had been with their firms for 18 years or more.

Table 4

Years Personnel Decision-Makers Filled Position

Years in Position	Number of Personnel Decision-Makers	Percentage
1	17	14.65
2	11	9.48
3	14	12.07
4	13	11.21
5	11	9.48
6	7	6.03
7	3	2.59
8	2	1.72
9	3	2.59
10	6	5.17
11	3	2.59
12	3	2.59
13	3	2.59
14	3	2.59
15	4	3.45
18	3	2.59
20	2	1.72
21	1	.86
25	1	.86
34	1	.86
37	1	.86
40	1	.86
No Response	3	2.59
Total	116	100.00

Research Question 1

1. What is the level of personnel decision-makers' knowledge about the myths and realities of aging?

The instrument used to determine the level of personnel decision-maker knowledge about the myths and realities of aging was Palmore's (1977) Facts on Aging Quiz: I. The quiz contained 25 separate items which personnel decision-makers were instructed to answer either "true" or "false." Each item on the instrument was examined in terms of percent of total respondents (116) answering true or false, or leaving the item unanswered (see Table 5).

Item 1: The majority of older people (past age 65) are senile (i. e., defective memory, disoriented, or demented). The answer to this item was false. Only one person (.87%) answered incorrectly and one person did not respond. An overwhelming majority (99.13%) of the responding subjects were aware that this item is a myth.

Item 2: All five senses tend to decline with old age. This is, in fact, true; however, three subjects did not answer and over two-thirds (67.26%) of the responding subjects answered false.

Item 3: Most older people have no interest in, or capacity for sexual relations. The percent of responding subjects who answered correctly that this statement was false was 94.69% and three people did not respond.

Item 4: Lung capacity tends to decline in old age. This statement is true, but over half (55.86%) of the subjects answered false and five chose not to respond.

Item 5: The majority of old people seem miserable most of the time. There were no missing data on this item; 93.97% knew the correct response.

Item 6: Physical strength tends to decline in old age. One respondent abstained and 86.09% of the personnel

Table 5

Calculated Responses to the 25 Items on the Facts on Aging Quiz: I

Item Number	Correct Responses	Percent	Incorrect Responses	Percent	Total Responses
1	114	99.13	1	.87	115
2	37	32.74	76	67.26	113
3	107	94.69	6	5.31	113
4	49	44.14	62	55.86	111
5	109	93.97	7	6.03	116
6	99	86.09	16	13.91	115
7	67	62.04	41	37.96	108
8	64	56.64	49	43.36	113
9	101	88.60	13	11.40	114
10	108	93.91	7	6.09	115
11	68	61.26	43	38.74	111
12	37	33.04	75	66.96	112
13	114	99.13	1	.87	115
14	96	83.48	19	16.52	115
15	109	94.78	6	5.22	115
16	53	48.18	57	51.82	110
17	83	74.11	29	25.89	112
18	79	76.70	24	23.20	103
19	6	5.71	99	94.29	105
20	39	35.45	71	64.55	110
21	52	47.27	58	52.73	110
22	111	96.52	4	3.48	115
23	34	30.36	78	69.64	112
24	36	32.73	74	67.27	110
25	76	69.72	33	30.28	109

decision-makers answered correctly that this statement is true.

Item 7: At least one-tenth of the aged are living in long-stay institutions (i.e., nursing home, mental hospitals, homes for the aged, etc.). Eight personnel decision-makers did not respond to this item and 37.96% answered true when the correct answer is false.

Item 8: Aged drivers have fewer accidents per person than drivers under the age of 65. Three subjects did not respond and 43.36% of the respondents said erroneously that this statement is false.

Item 9: Most older workers cannot work as effectively as younger workers. Only 11.40% of subjects answered incorrectly that this statement is true.

Item 10: About 80% of the aged are healthy enough to carry out their normal activities. Of the 115 responding subjects who answered this question, 93.91% answered correctly that this statement is true.

Item 11: Most old people are set in their ways and unable to change. Over one-third, 38.74%, answered incorrectly that this statement is true. Five did not respond.

Item 12: Old people usually take longer to learn something new. Only about one-third (33.04%) of the responding subjects in this study answered correctly that this statement is true and four did not respond. When answered incorrectly, this is considered a pro-bias item.

Item 13: It is almost impossible for most old people to learn new things. Closely related to the previous item, but worded negatively, this statement was correctly answered false by 99.13% of the 115 responding subjects.

Item 14: The reaction time of most old people tends to be slower than the reaction time of younger people. One person did not respond and 83.48% of the subjects answered correctly that this is true.

Item 15: In general, most old people are pretty much alike. In response to this item, 94.78% of the subjects correctly answered false and one abstained.

Item 16: The majority of old people are seldom bored. This item elicited answers that were approximately one-half (48.18%) right and one-half (51.82%) wrong, with six subjects not responding. The correct response is true.

Item 17: The majority of old people are socially isolated and lonely. Four subjects did not respond to this item and 74.11% correctly answered false.

Item 18: Older workers have fewer accidents than younger people. A majority of the responding subjects (76.70%) were knowledgeable and answered true to this statement, but 13 did not respond. This was the largest non-responding group for any item on the quiz.

Item 19: Over 15% of the United States population are now 65 or over. This item was incorrectly answered true by 94.29% with an additional 11 persons leaving it blank.

Item 20: Most medical practitioners tend to give low priority to the aged. Of the 110 subjects who responded, 64.55% incorrectly answered false.

Item 21: The majority of older people have incomes below the poverty level (as defined by the federal government). Slightly over one-half (52.73%) of the respondents who answered this item thought of the elderly as poor, despite national figures to the contrary. Six subjects did not answer.

Item 22: The majority of older people are working or would like to have some kind of work to do (including housework and volunteer work). A vast majority (96.52%) of the responding sample was aware that older individuals want to be productive (one person did not respond).

Item 23: Old people tend to become more religious as they age. A majority (69.64%) of the responding subjects incorrectly answered true and four people did not answer.

Item 24: The majority of older people are seldom irritated or angry. This negative stereotype was shared by 67.27% of the responding subjects who erroneously responded false to this item.

Item 25: The health and socioeconomic status of older people (compared to younger people) in the year 2000 will probably be the same as now. Seven subjects did not respond and 69.72% answered correctly that this statement is false.

Items 1-25: Total for quiz. The total score was a summation of correct responses to each item. The maximum total score was 25. The range of scores in this sample was 7 through 21. The mean was 16.1 (64%) with a standard deviation of 2.5.

Research Questions 2 and 9

2. To what degree do personnel decision-makers perceive selected issues to be obstacles to retaining older workers?
9. When the responses of the personnel decision-makers to the items on the Employing the Older Workers Scale are categorized according to the proportion of older workers employed in the firms of the personnel decision-makers, are there differences ($p = .05$) in (a) the item means and (b) the means of selected subsets of items?

The calculated percentage of the respondents selecting one of the five levels of agreement (strongly agree, agree, undecided, disagree, and strongly disagree) for the "obstacles to retaining older workers" issues on Sheppard's (1987) Employing the Older Worker Scale (Research Question 2) are shown in Table 6. The percentage distributions were based on 100% of those actually responding to the selected issues on the Employing the Older Workers Scale (Sheppard, 1987). Shown in Table 7 are the means and standard deviations for each issue. These were computed by assigning a 5,4,3,2, and 1 value to the above options with a 5 being strongly agree. Further, the eight items that relate to obstacles to retaining older workers were used to determine a mean for the subset for each of the three groups and these were compared. The technique for these analyses was one-way ANOVA followed by Bonferroni t if the ANOVA value was significant (p = .05).

To determine if there were differences among issue means, the responses were grouped according to the number of older workers in the firms: those with no older workers (Group 1), .001 through 5% older workers (Group 2), and more than 5% older workers (Group 3).

Issue 1: Greater absenteeism. The distribution of responses concerning greater absenteeism being an obstacle to retaining currently employed workers 65 years or older included the following: over one-half, 65 subjects (58.56%), disagreed that greater absenteeism was an obstacle to retaining older workers; 22 personnel decision-makers (19.82%) were undecided; 12 (10.81) agreed; 12 (10.81%) strongly agreed; and no one strongly agreed. There were 5 missing cases.

The results of the one-way ANOVA for mean differences among the three groups indicated a significant difference (F = 13.26, p = .05). The means and standard deviations (SD) for the three groups were as follows: Group 1 = 2.68, SD .78; Group 2 = 1.93, SD .79; and Group 3 = 2.00 SD .53. Using Bonferroni's t [t_b] revealed there

Table 6

Percentage of Respondents Selecting Each Option for the Obstacles to Retaining Older Workers Issues

Issue #	Total Respond-ing	Strongly Agree	Agree	Undecided	Dis-agree	Strongly Dis-agree
1	111	.00	10.81	19.82	58.56	10.81
2	111	5.41	30.63	19.82	39.64	4.50
3	110	1.82	20.91	20.00	50.00	7.27
4	110	2.73	12.73	18.18	57.27	9.09
5	110	10.91	30.91	26.36	27.27	4.55
6	106	4.72	17.92	33.96	36.79	6.60
7	111	3.60	18.02	19.82	54.95	3.60
8	111	2.70	21.62	27.03	40.54	8.11

Table 7

Means and Standard Deviations for the Obstacles to Retaining Older Workers Issues

	Group 1		Group 2		Group 3	
Issue #	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
1	2.68	.78	1.93	.79	2.00	.53
2	3.14	.99	2.93	1.05	2.52	.99
3	2.83	.85	2.39	.96	2.41	1.02
4	2.69	.95	2.19	.88	2.21	.73
5	3.39	.98	2.82	1.19	3.00	1.00
6	3.02	.86	2.38	1.07	2.67	.85
7	2.86	.92	2.50	.92	2.34	.86
8	2.97	.87	2.46	.92	2.45	1.09

were significant differences between Group 1 and 2 (t_b = 3.98, p = .05), a significant difference between Group 1 and 3 (t_b = 4.23, p = .05), and no significant difference between Groups 2 and 3.

Issue 2: Greater physical limitations. The largest number, 44 subjects (39.64%), disagreed that greater physical limitations were an obstacle to retaining older workers. Thirty-four personnel decision-makers (30.63%) agreed, 22 (19.82%) were undecided, 6 (5.41%) responded strongly agree, and 5 subjects (4.5%) strongly disagreed. Five subjects chose not to answer.

The results of the ANOVA revealed a significant difference (F = 3.68, p = .05) among the means of the groups. The means and standard deviations were as follows: Group 1 = 3.14, SD .99; Group 2 = 2.93, SD 1.05; and Group 3 = 2.52, SD .99. There was a significant difference (t_b = 2.76, p = .05) between Group 1 and Group 3, but no significant difference between Groups 1 and 2 or between Groups 2 and 3 (see Table 7).

Issue 3: Difficulty in learning new tasks. Of the 110 subjects responding to this issue, 55 (50%) disagreed that difficulty in learning new tasks was an obstacle to retaining older workers. Twenty-three individuals (20.91%) agreed, 22 (20%) were undecided, 8 (7.27%) strongly disagreed, 2 (1.82%) answered strongly agree, and 6 subjects did not respond.

The ANOVA result indicated a significant difference among the means ($F = 3.11$, $p = .05$). Again, though, the use of the more conservative Bonferroni test indicated there were no significant differences between the pairs of the group means. The means and standard deviations were as follows: Group 1 = 2.83, SD .85; Group 2 = 2.39, SD .99; and Group 3 = 2.41, SD 1.02.

Issue 4: Difficulty in reasoning or remembering. A large majority of the respondents in this study did not consider difficulty in reasoning or remembering an obstacle to retaining older workers. Sixty-three subjects (57.27%) disagreed, and 10 subjects (9.09%) strongly disagreed. Twenty personnel decision- makers (18.18%) were undecided, 14 (12.73%) agreed, 3 (2.73%) strongly agreed, and there were 6 missing cases.

The result of a one-way ANOVA was significant ($F = 4.37$, $p = .05$). The means and standard deviations were as follows: Group 1 = 2.69, SD .95; Group 2 = 2.19, SD .88; and Group 3 = 2.21, SD .73. There was a significant difference between Groups 1 and 3 ($t_b = 2.44$, $p = .05$), but no significant differences between Groups 1 and 2 or between Groups 2 and 3.

Issue 5: Greater cost of health insurance. The responses for the issue of the greater cost of health insurance being an obstacle to retaining older workers were almost equally divided. Thirty-four subjects (30.91%) agreed that health care costs constituted an obstacle. Thirty (27.27%) respondents disagreed, 29 (26.36%) were undecided, 12 (10.91%) strongly agreed, and 5 (4.55%) strongly disagreed. There were 6 missing cases.

The ANOVA result indicated a significant difference among the means ($F = 3.27$, $p = .05$). Again, though, the use of the more conservative Bonferroni test indicated there were no significant differences between the pairs of the group means. The means and standard deviations were as follows: Group 1 = 3.39, SD .98; Group 2 = 2.82, SD 1.19; and Group 3 = 3.00, SD 1.00.

Issue 6: Cost of pension plan. Thirty-nine subjects (36.79%) disagreed that the cost of pension plans was an obstacle to retaining older workers. Thirty-six (33.96%) were undecided, 19 (17.92%) agreed, 7 (6.60%) strongly disagreed, 5 (4.72%) strongly agreed, and 10 subjects did not respond.

The ANOVA results indicated a significant difference among the means ($F = 4.20$, $= .05$). The means and standard deviations were as follows: Group 1 = 3.02, SD .86; Group 2 = 2.38, SD 1.07; and Group 3 = 2.67, SD .85. The pooled estimate of variance between means was significant ($t_b = 2.75$, $p = .05$) for Groups 1 and 3. There was no significant difference between Groups 1 and 2, or between Groups 2 and 3.

Issue 7: Lower entry level salaries for younger workers. The majority of subjects, 61 (54.95%), disagreed that lower entry salaries for younger workers was an obstacle to retaining older workers. Twenty-two (19.82) were undecided, 20 (18.02%) personnel decision-makers said they agreed, 4 (3.60%) strongly disagreed, and 4 (3.60%) strongly agreed. Five subjects did not respond.

The result of one-way ANOVA indicated a significant difference ($F = 3.69$, $p = .05$) among the means: Group 1 = 2.86, SD .92; Group 2 = 2.50, SD .92; and Group 3 = 2.34, SD .86. The results of the Bonferroni t indicated a significant difference ($t_b = 2.56$, $p = .05$) between Groups 1 and 3, but no significant difference between Groups 2 and 3.

Issue 8: Slower and less adaptable. Forty-five (40.54%) subjects disagreed that the issue of older workers being slower and less adaptable was an obstacle to retaining older workers. Thirty (27.03%) were undecided, 24 (21.62%) agreed, 9 (8.11%) strongly disagreed, and 3 (2.7%) strongly agreed. Five personnel decision-makers did not respond.

There was a significant difference ($F = 4.26$, $p = .05$) among the means: Group 1 = 2.97, SD .87; Group 2 = 2.46, SD .92; and Group 3 = 2.45, SD 1.09. The results of th Bonferroni t indicated a significant difference ($t_b = 2.47$, $p = .05$) between Groups 1 and 2, a significant difference ($t_b = 2.44$, $p = .05$) between Groups 1 and 3, but no significant difference between Group 2 and Group 3.

Items 1-8: Obstacles to retaining older workers. When the groups were compared for the total subset, the result was significant ($F = 10.492$, $p = .05$). The means were as follows: Group 1 = 23.56, Group 2 = 19.79, and Group 3 = 19.57 (see Appendix E). The results of the Bonferroni t between Group 1 and Group 2 was $t_b = 3.46$, between Group 1 and 3 is was $t_b = 3.97$, and between Group 2 and 3 there was no significant difference ($p = .05$).

Research Questions 3 and 9

3. To what degree do personnel decision-makers perceive selected issues to be obstacles to hiring older workers?
9. When the responses of the personnel decision-makers to the items on the Employing the Older Workers Scale are categorized according to the proportion of older workers employed in the firms of the personnel decision-makers, are there differences ($p = .05$) in (a) the item means and (b) the means of selected subsets of items?

The calculated percentage of the respondents in selecting one of the five levels of agreement (strongly agree, agree, undecided, disagree, and strongly disagree) for the "obstacles to hiring older workers" items in Employing the Older Worker Scale (Sheppard, 1987) (Research Question 3) is exhibited in Table 8. The percentage distributions were based on 100% of those personnel decision-makers actually responding to the

Employing the Older Worker Scale (Sheppard, 1987). Shown in Table 9 are the means and standard deviations for each issue. These were computed by assigning a 5, 4, 3, 2, and 1 value to the above options with a 5 being strongly agree. To determine if there were differences among item means, the responses were grouped according to the number of older workers employed in the firm: those with no older workers (Group 1), .001 through 5% older workers (Group 2), and more than 5% older workers (Group 3). The technique for these analyses was a one-way ANOVA followed by the Bonferroni t if the ANOVA value was significant ($p = .05$).

Issue 1: Greater absenteeism. Greater absenteeism, as an obstacle to hiring the older worker, was the only issue answered by every subject. The majority, 70 (60.34%), of the personnel decision-makers disagreed that greater absenteeism was an obstacle to hiring older workers, 25 (21.55%) were undecided, 12 (10.34%) subjects strongly disagreed, 7 (6.03%) agreed, and 2 (1.72%) strongly agreed.

ANOVA results revealed a significant difference ($F = 5.98$, $p = .05$) among the group means: Group 1 = 2.53, SD .77; Group 2 = 2.07, SD .66; and Group 3 = 2.00, SD .85. The results of the Bonferroni t indicated a significant difference ($t_b = 2.91$, $p = .05$) between the means of Group 1 and Group 3 and a significant difference ($t_b = 2.67$, p

= .05) between the means of Groups 1 and 2. There was no significant difference between Groups 2 and 3.

Table 8

Percentage of Respondents Selecting Each Option for the Obstacles to Hiring Older Workers Issues

Issue #	Total Responding	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1	116	1.72	6.03	21.55	60.34	10.34
2	115	4.35	34.78	16.52	40.00	4.35
3	115	1.74	23.48	15.65	53.04	6.09
4	115	1.74	13.04	20.87	58.26	6.09
5	115	10.43	32.17	29.57	26.09	1.74
6	115	4.35	27.83	28.70	34.78	4.35
7	114	.88	20.18	24.56	49.12	5.26
8	115	7.83	37.39	20.00	29.57	5.22

Table 9

Means and Standard Deviations for the Obstacles to Hiring Older Workers Issues

	Group 1		Group 2		Group 3	
Issue #	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
1	2.53	.77	2.07	.66	2.00	.85
2	3.12	1.00	3.00	1.09	2.55	1.02
3	2.83	.91	2.43	.92	2.38	1.05
4	2.71	.83	2.29	.81	2.14	.83
5	3.37	.91	3.00	1.22	3.17	.97
6	3.03	.93	2.93	1.02	2.72	1.07
7	2.76	.92	2.46	.84	2.41	.98
8	3.29	.93	3.36	1.03	2.59	1.27

Issue 2: Greater physical limitations. Forty-six (40%) of the personnel decision-makers disagreed that greater physical limitation was an obstacle to hiring older workers, 40 (34.78%) agreed, 19 (16.52%) were undecided, 5 (4.35%) strongly disagreed, and 5 (4.35%) strongly agreed. There was 1 missing case. The ANOVA result revealed no significant difference among the means of groups: Group 1 = 3.12, SD 1.00; Group 2 = 3.00, SD 1.09; and Group 3 = 2.55, SD 1.02.

Issue 3: Difficulty in learning new tasks. Sixty-one (53.04%) respondents disagreed that this issue was an obstacle to hiring older workers. Twenty-seven (23.48%) of the subjects agreed, 18 (15.65%) were undecided, 7 (6.09%) strongly disagreed, 2 (1.74%) strongly agreed, and there was 1 missing case.

ANOVA results disclosed no significant difference among the means of the groups: Group 1 = 2.83, SD .91; Group 2 = 2.43, SD .92; and Group 3 = 2.38, SD 1.05.

Issue 4: Difficulty in reasoning or remembering. Sixty-seven (58.26%) of the respondents disagreed that difficulty in reasoning or remembering was an obstacle to hiring older workers. Twenty-four (20.87%) of the personnel decision-makers were undecided, 15 (13.04%) agreed, 7 (6.09%) strongly disagreed, 2 (1.74%) strongly agreed, and 1 decision-maker did not respond.

The result of the ANOVA was significant (F = 5.56, p = .05) for the means: Group 1 = 2.71, SD .83; Group 2 =

2.29, SD .81; and Group 3 = 2.17, SD .83. The results of the Bonferroni t revealed a significant difference (t_b = 3.04, p = .05) between the means of Groups 1 and 3; there was no significant difference between the means of Groups 1 and 2, or between Groups 2 and 3.

Issue 5: Greater cost of health insurance. High health insurance costs were an obstacle to hiring older workers. Thirty-four (29.57%) of the respondents were undecided, 30 (26.09%) disagreed, 12 (10.43%) strongly agreed, and 2 subjects (1.74%) disagreed. There was 1 missing case.

The result of the ANOVA revealed no significant difference among the group means: Group 1 = 3.37, SD .91; Group 2 = 3.00, SD 1.22; and Group 3 = 3.17, SD .97.

Issue 6: Cost of pension plan. Of the 115 personnel decision-makers responding to this issue, 40 (34.78%) disagreed that the cost of the pension plan was an obstacle to hiring older workers; 33 (28.70%) were undecided, 32 (27.83%) agreed, 5 (4.35%) strongly agreed, and 5 (4.35%) strongly disagreed, and there was 1 missing case.

There was no significant mean difference indicated by the ANOVA: Group 1 = 3.03, SD .93; Group 2 = 2.93, SD 1.02; and Group 3 = 2.72, SD 1.07.

Issue 7: Lower entry level salaries for younger workers. Almost half of the 116 subjects, 56 (49.12%), disagreed with the statement. Twenty-eight (24.56%) were undecided, 23 (20.18%) agreed, 6 (5.26%) strongly disagreed, and 1 (.88%) strongly agreed. There were 2 missing cases.

The use of ANOVA revealed no significant difference among the means of the three groups: Group 1 = 2.76, SD .92; Group 2 = 2.46, SD .84; and Group 3 = 2.41, SD .98.

Issue 8: Slower and less adaptable. Forty-three (37.39%) percent of the respondents agreed with the statement. Thirty-four (29.57%) disagreed, 23 (20.00%) were undecided, 9 (7.83%) strongly agreed, and 6 (5.22%) strongly disagreed. There was 1 missing case.

There was a significant difference among the means (F = 5.26, p = .05) of the groups: Group 1 = 3.29, SD .93; Group 2 = 3.36, SD 1.03; and Group 3 = 2.59, SD 1.27. The significant mean differences were between Groups 2 and 3 (t_b = 2.52, p = .05) and between Groups 1 and 3 (t_b = 2.94, p = .05); there was no significant difference between the means of Groups 1 and 2 (see Table 9).

Items 1-8: Obstacles to hiring older workers. When the groups were compared for the total subset the result was significant (F= 6.731, p = .05). The means were as follows, Group 1 = 23.70, Group 2 = 21.32, and Group 3 = 20.03 (see Appendix E). The results of the Bonferroni t indicated no significant difference between Groups 1 and 2. There was a significant difference (t_b = 3.48) between Groups 1 and 3. There was no significant difference between Groups 2 and 3.

Research Questions 4 and 9

4. To what degree do personnel decision-makers perceive selected issues to be advantages to retaining older workers?
9. When the responses of the personnel decision-makers to the items on the Employing the Older Workers Scale are categorized according to the proportion of older workers employed in the firms of the personnel decision-makers, are there differences ($p = .05$) in (a) the item means and (b) the means of selected subsets of items?

The results of the calculated percentages of the respondents selecting one of the five levels of agreement (strongly agree, agree, undecided, disagree, and strongly disagree) for the "advantages to retaining older workers" items on Sheppard's (1987) Employing the Older Worker Scale (Research Question 4) are shown in Table 10. The percentage distributions were based on 100% of those personnel decision-makers actually responding to each selected issue on the Employing the Older Worker Scale (Sheppard, 1987). Shown in Table 11 are the means and standard deviations for each issue. These were computed by assigning a 5,4,3,2, and 1 value to the above options with a 5 being strongly agree.

Issue 1: Greater cost of training a new, younger worker. The majority of the 116 personnel decision-makers responding to this issue, 63 (55.75%), agreed that the cost of training a new, younger worker was an advantage to retaining older workers. Twenty-one (18.58%) disagreed, 13 (11.50%) were undecided, 15 (13.27%) strongly agreed, and 1 respondent (.88%) strongly disagreed. There were 3 missing cases.

Table 10

Percentage of Respondents Selecting Each Option for the Advantages to Retaining Older Workers Issues

Issue #	Total Responding	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1	113	13.27	55.75	11.50	18.58	.88
2	113	7.96	53.10	16.81	21.24	.88
3	110	7.27	48.18	25.45	16.36	2.73
4	113	30.97	55.75	5.31	7.96	.00
5	112	12.50	35.71	33.93	17.86	.00
6	111	25.23	60.36	9.01	5.41	.00
7	109	22.02	47.71	18.35	11.01	.92

The result of the ANOVA revealed no significant difference among the means of Group 1 (0% older workers), Group 2 (.001 through 5% older workers), or Group 3 (more than 5% older workers). The means and standard deviations of the groups were as follows: Group 1 = 3.61, SD .91; Group 2 = 3.50, SD 1.17; and Group 3 = 3.69, SD .85.

Issue 2: Cost of finding a new recruit. Sixty (53.10%) personnel decision-makers agreed that the cost of finding a new recruit was an advantage to retaining older workers. Twenty-four (21.24%) disagreed, 18 (16.81%) subjects were undecided, 9 (7.96%) strongly agreed, 1

Table 11

Means and Standard Deviations for the Advantages to Retaining Older Workers Issues

Issue #	Group 1 Mean	Group 1 Standard Deviation	Group 2 Mean	Group 2 Standard Deviation	Group 3 Mean	Group 3 Standard Deviation
1	3.61	.91	3.50	1.17	3.69	.85
2	4.27	.91	3.25	1.04	3.69	.89
3	3.42	.91	3.29	1.01	3.41	.87
4	3.98	.78	3.96	1.04	4.34	.67
5	3.29	.89	3.57	.95	3.52	.91
6	3.93	.69	4.11	.92	4.07	.75
7	3.78	.81	3.32	1.12	4.07	.84

(.88%) strongly disagreed, and 3 did not respond.

There was no significant difference among the means: Group 1 = 4.27, SD .91; Group 2 = 3.25, SD 1.04; and Group 3 = 3.69, SD .89.

Issue 3: Cost of locating a new, already trained recruit. Fifty-three (48.18%) personnel decision-makers responding to this issue agreed this was an advantage. Twenty-eight (25.45%) were undecided, 18 (16.36%) disagreed, 8 (7.27%) strongly agreed, and 3 (2.73%) strongly disagreed. There were 6 missing cases.

As with the previous issue, there was no significant difference among the means of the three groups. The means and standard deviations for the groups were as follows: Group 1 = 3.42, SD .91; Group 2 = 3.29, SD 1.01; and Group 3 = 3.41, SD .87.

Issue 4: Low turnover rate of older employees. Sixty-three (55.75%) subjects agreed that the lower turnover rate of older employees was an advantage to retaining older workers. Thirty-five (30.97%) strongly agreed, 9 (7.96%) disagreed, 6 (5.31%) were undecided, and no personnel decision-maker strongly disagreed. There were 3 missing cases.

There was no significant difference among the means of the groups: Group 1 = 3.98, SD .78; Group 2 = 3.96, SD 1.04, and Group 3 = 4.34, SD .67.

Issue 5: Low accident rate of older employees. Of the personnel decision-makers responding, 38 (33.93%), were undecided about this item, which was more than for any other item in the instrument. Forty (35.71%) subjects agreed that low accident rate was an advantage to retaining older workers, 20 (17.86%) disagreed, 14 (12.50%) strongly agreed, and no one strongly disagreed. There were 4 missing cases.

The ANOVA revealed no significant difference among the group means: Group 1 = 3.29, SD .89; Group 2 = 3.57, SD .95; and Group 3 = 3.52, SD .91.

Issue 6: Transfer of knowledge from older workers to younger workers. Sixty-seven (60.36%) of the subjects responding to this issue agreed that the transfer of knowledge from older workers to younger workers was an advantage. Twenty-eight (25.23%) strongly agreed, 10 (9.01%) were undecided, 6 (5.41%) disagreed, and no one strongly disagreed. There were 5 missing cases for this issue.

There was no significant mean difference among the groups: Group 1 = 3.93, SD .69; Group 2 = 4.11, SD .92; and Group 3 = 4.07, SD .75.

Issue 7: Ethical responsibilities to older workers. Of the 116 personnel decision-makers, 52 (47.71%) agreed this was an advantage to retaining older workers. Twenty-four (22.02%) subjects strongly agreed, 20 (18.35%) were undecided, 12 (11.01%) disagreed, and 1 (.92%) strongly disagreed. This issue elicited the largest number of personnel decision-makers (7) who did not respond.

According to the result of the ANOVA, there was a significant difference ($F = 4.99$, $p = .05$) among the means of the groups: Group 1 = 3.78, SD .81; Group 2 = 3.32, SD 1.12; and Group 3 = 4.07, SD .84. A significant difference was found between the means of Groups 2 and 3 ($t_b = -2.85$, $p = .05$). There was no significant difference between the means of Groups 1 and 2, or between Groups 1 and 3 (see Table 11).

Issues 1-7: Advantages to retaining older workers. When the groups were compared for the total subset, the results were not significant ($F = 1.470$, $p = .05$). The means were as follows: Group 1 = 25.48, Group 2 = 25.00, Group 3 = 26.79 (see Appendix E).

Research Questions 5 and 9

5. To what degree do personnel decision-makers perceive selected issues to be advantages to hiring older workers?
9. When the responses of the personnel decision-makers to the items on the Employing the Older Workers Scale are categorized according to the proportion of older workers employed in the firms of the personnel decision-makers, are there differences (p = .05) in (a) the item means and (b) the means of selected subsets of items?

The calculated percentages of the respondents in selecting one of the five levels of agreement (strongly agree, agree, undecided, disagree, and strongly disagree) for the "advantages to hiring older workers" issues from Employing the Older Worker Scale (Sheppard 1987) (Research Question 5) are shown in Table 12. The percentage distributions were based on 100% of those personnel decision-makers actually responding to each selected issue on the Employing the Older Worker Scale (Sheppard, 1987).

To determine if there were differences among the item means, the responses were grouped according to the number of older workers employed in the firm: those with no older workers (Group 1), .001 through 5% older workers (Group 2), and more than 5% older workers (Group 3). The

Table 12

Percentages of Respondents Selecting Each Option to the Advantages to Hiring Older Workers Issues

Issue #	Total Responding	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1	115	4.35	40.87	22.61	27.83	4.34
2	113	15.93	55.75	15.04	10.62	2.65
3	112	3.57	15.18	46.43	26.79	8.04
4	116	13.79	35.34	25.86	19.83	5.17
5	116	22.41	64.66	6.03	6.03	.86
6	115	13.04	56.52	18.26	10.43	1.74
7	113	13.27	39.82	23.01	20.35	3.54

Table 13

Means and Standard Deviations for the Advantages to Hiring Older Workers Issues

	Group 1		Group 2		Group 3	
Issue #	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
1	3.15	.91	2.96	1.14	3.24	1.09
2	3.66	.84	3.39	1.10	4.07	.88
3	2.86	.94	2.61	.92	2.86	.83
4	3.37	1.13	3.14	.97	3.41	1.18
5	4.05	.75	3.79	.83	4.17	.76
6	3.69	.88	3.43	.88	3.90	.90
7	3.39	1.07	3.25	1.08	3.48	1.02

technique for these analyses was a one-way ANOVA followed by the Bonferroni t if the ANOVA value was significant (p = .05).

Issue 1: Greater cost of training a new, inexperienced worker. Of the 116 personnel decision-makers responding to this issue, 47 (40.87) agreed that the cost of training a new, inexperienced worker was an advantage to hiring unemployed, older workers. Thirty-two (27.83%) personnel decision-makers disagreed, 26 (22.61%) were undecided, 5 (4.34%) respondents strongly agreed, and 5 (4.35%) strongly disagreed. There was 1 missing case.

As shown in Table 13, the means and standard deviations of the groups were as follows: Group 1 = 3.15, SD .91; Group 2 = 2.96, SD 1.14; and Group 3 = 3.24, SD 1.09. Based on the ANOVA, there was no significant difference among the group means.

Issue 2: Low turnover rate of older workers. The number of personnel decision-makers agreeing that a low turnover rate was an advantage to hiring older workers was 63 (55.75%), 18 (15.93%) subjects strongly agreed, 17 (15.93%) were undecided, 12 (10.62%) disagreed, and 3 (2.65%) strongly disagreed. There were 2 missing cases.

The ANOVA revealed a significant mean difference (F = 3.94, p = .05) among the groups: Group 1 = 3.66, SD .84; Group 2 = 3.39, SD 1.10; and Group 3 = 4.07, SD .88. There was a significant difference between the means of Group 2 and Group 3 (t_b = -2.56, p = .05). There was no significant difference between the means of Groups 1 and 2, or Groups 1 and 3.

Issue 3: Tax advantage in hiring older workers. Of those responding to the issue, 52 (46.43%) personnel decision-makers were undecided if receiving tax advantages was an advantage in hiring older workers. This item garnered more undecided responses than any other item on the scale. Thirty (26.79%) personnel decision-makers disagreed, 17 (15.18%) agreed, 9 (8.04%) strongly disagreed, and 4 (3.5%) strongly agreed. There were 3 missing cases.

According to the ANOVA result, there was no significant difference among the means: Group 1 = 2.86, SD .94; Group 2 = 2.61, SD .92; and Group 3 = 2.86, SD .83.

Issue 4: Availability for work at odd hours. That this is an advantage to hiring older workers met with concurrence from 41 (35.34%) personnel decision-makers who agreed, and 16 (13.79%) who strongly agreed. Thirty (25.86%) respondents were undecided, 23 (19.83%) personnel decision-makers disagreed, and 6 (5.17%) strongly disagreed. There were 6 missing cases.

The result of the ANOVA indicated no significant difference among the means of the groups: Group 1 = 3.37, SD 1.13; Group 2 = 3.14, SD .97; and Group 3 = 3.41, SD 1.18.

Issue 5: Availability for part-time work. An overwhelming number, 75 (64.66%), of the personnel decision-makers agreed that the availability for part-time work is an advantage in hiring older workers. Twenty-six (22.41%) respondents strongly agreed, 7 (6.03%) were undecided, 7 (6.03%) disagreed, and only 1 (.86%) respondent strongly disagreed. There were no missing cases.

The ANOVA result revealed no significant difference among the means: Group 1 = 4.05, SD .75; Group 2 = 3.79, SD .83; and Group 3 = 4.17, SD .76.

Issue 6: Appearance of stability and continuity of company. Of the 115 personnel decision-makers responding to the survey, 65 (56.52%) agreed and 15 (13.04%) strongly agreed that the appearance of stability and continuity of the company was an advantage to hiring older workers. Twenty-one (18.26%) were undecided, 12 (10.43%) disagreed, and 2 (1.74%) personnel decision-makers strongly disagreed.

There was no significant difference among the group means: Group 1 = 3.69, SD .88; Group 2 = 3.43, SD .88; and Group 3 = 3.90, SD .90.

Issue 7: Greater appeal to older customers. That older workers instill confidence in their peers was agreed to by 45 (39.82%) of the personnel decision-makers responding to this issue. Twenty-six (23.01%) were undecided, 23 (20.35%) disagreed, 15 (13.27%) strongly agreed, and 4 (3.54%) strongly disagreed. There were 3 missing cases.

There was no significant difference among the group means: Group 1 = 3.39, SD 1.07; Group 2 = 3.25, SD 1.08; and Group 3 = 3.48, SD 1.02.

Issues 1-7: Advantage to hiring older workers. When the groups were compared for the total subset, the result was not significant (F = 2.151, p = .05). The means were as follows: Group 1 = 24.15, Group 2 = 22.60, and Group 3 = 25.10 (see Appendix E).

Research Question 6

6. What is the relationship between personnel decision-makers' knowledge about aging and their level of responses to obstacles to hiring and retaining older workers?

There were two significant (p = .05) correlations (Pearson r) between personnel decision-maker scores on the FOA = I (Palmore, 1977) and their obstacle score (see Table 14). The greater the knowledge of the personnel decision-maker the greater the disagreement with the statement that physical limitations were an obstacle to retaining older workers. This is indicated by the negative Pearson r (-.26). The greater the knowledge of the personnel decision-maker the greater was the agreement that issue 6, the cost of the pension plan, (Pearson r = .20) was an obstacle to retaining older workers.

Table 14

Correlation Between Personnel Decision-Makers' Knowledge and Obstacle Score

	Obstacles to retaining older workers Pearson r	t		Obstacles to hiring older workers Pearson r	t
Issue 1	.01	.11		.06	.64
Issue 2	-.26	-2.87	*	-.16	-1.73
Issue 3	-.15	-1.62		-.09	-0.96
Issue 4	-.17	-1.84		-.12	-1.29
Issue 5	-.15	-1.62		.14	1.51
Issue 6	.20	2.18	*	.00	0
Issue 7	.07	0.75		-.05	-0.53
Issue 8	-.17	-1.84		.00	0

* Significant at $p = .05$.

Research Question 7

7. What is the relationship between personnel decision-makers' knowledge about aging and their level of response to advantages to hiring and retaining older workers?

There were five statistically significant correlations between personnel decision-maker scores on the FOA: I (Palmore, 1977) and their advantage scores (see Table 15). However the correlations were modest.

Research Question 8

8. What is the relationship between personnel decision-makers' knowledge about aging and the percent of older workers in a firm?

Table 15

Correlation Between Personnel Decision-Makers' Knowledge and Advantage Scores

	Advantages to retaining older workers Pearson *r*	t	Advantages to hiring older workers Pearson *r*	t
Issue 1	.24	2.61 *	.26	2.87 *
Issue 2	.13	1.40	.04	.43
Issue 3	.07	.75	.04	.43
Issue 4	-.04	-0.42	.09	.96
Issue 5	.25	2.77 *	.02	.21
Issue 6	.31	3.48 *	-.06	-0.64
Issue 7	.20	2.17 *	-.08	-0.85

* Significant at p = .05.

There was a nonsignificant (p = .05) degree of correlation between the proportion of older workers in a firm and the personnel decision-makers' knowledge about aging (r = .03).

Research Question 10

10. When the total scores of the personnel decision-makers on the Facts on Aging Quiz: I are categorized according to the proportion of older workers employed in the firms of the decision-makers, is there a difference (p = .05)?

When the personnel decision-makers were grouped according to the proportion of older workers in a firm, the ANOVA results (see page 132) did not show significant differences (F = .422) at the .05 level among their scores on the Facts on Aging Quiz: I (Palmore, 1977).

CHAPTER 5
SUMMARY AND RECOMMENDATIONS

Summary

The purpose of this descriptive research was to determine various aspects of personnel decision-makers' knowledge about older adults and their perceptions of older workers. Specifically, personnel decision-makers were assessed to determine (a) their perceptions about advantages and obstacles to hiring and retaining older workers, (b) their knowledge about stereotypes and realities concerning the elderly, and (c) the relationship of these variables to the proportion of older workers in a firm.

Determining the knowledge base of employers and personnel decision-makers concerning the older workers' abilities and liabilities seemed necessary in order to encourage a personnel decision-maker to view the older worker positively. Determining what employers and personnel decision-makers considered obstacles and advantages could result in different legislation and policy recommendations. Furthermore, employment counselors working with older workers need to be advised what obstacles and advantages affect personnel decision-makers' hiring and retaining practices. Identification of the variables affecting choices of personnel decision-makers must be made and reviewed for use in practice and in the training of professionals (Perlman & Austin, 1987).

The random sample of personnel decision-makers in this study was taken from the greater Orlando Chamber of Commerce 1986-1987 Buyer's Guide and Membership Directory. Two instruments were sent to each of the 150 respondents agreeing to take part in the study. Of those agreeing to participate in the research, 116 returned completed instruments. Research questions 1 through 5 were analyzed with descriptive statistics and Questions 9 and 10 were analyzed using ANOVA. Bonferonni's t was employed to determine differences between group means when a significant F resulted from the ANOVA testing. Questions 6 through 8 were analyzed using Pearson's r. Firms were categorized by the percentage of older workers employed: no older workers (Group 1), .001 through 5% older workers (Group 2), and more than 5% older workers (Group 3).

Personnel decision-makers' knowledge about older adults was assessed by their scores on the questions on the Facts on Aging Quiz: I (Palmore, 1977). Personnel decision-makers' perceptions of the advantages and obstacles to retaining and hiring older workers were determined by responses to the issues on the Employing the Older Worker Scale (Sheppard, 1987). Some significant findings resulted from this study. The results, along with their implications, are presented in this chapter.

Findings Related to Items on the Facts on Aging Quiz: I

Research Question 1 was as follows: What is the level of personnel decision-makers' knowledge about the myths and realities of aging? Several important findings were derived from answers to the questions on Palmore's Facts on Aging Quiz: I (FAO:I) (1977). The personnel decision-makers participating in this study seemed to have a positive bias about older adults. When wrong in responding to FAO:I items, they were often incorrect in the direction that overestimated the older adults' abilities and underestimated their failings. As an example, item 2 of FAO:I concerning the decline of senses in old age was answered incorrectly (false) by over 67% of the respondents. The error of the personnel decision-makers emphasizes they believed older people do not have failing senses when in fact they do.

The scores from the respondents were consistent with mean scores of groups in other studies (Holtzman & Beck, 1979; Palmore, 1980). In the Palmore (1977) study, using education level as the criterion, the mean percentage of correct answers for those with a high school diploma was 55%, for college graduates 62%, graduate school participants 68%, and college faculty 84%. The mean percentage of correct answers for personnel decision-makers was 64.

Item 1: The majority of older people (past age 65) are senile (i. e., defective memory, disoriented, or demented). Only one person answered incorrectly, indicating that almost everyone in this study was aware that this statement is a myth.

Item 2: All five senses tend to decline in old age. Although in fact true, of those decision-makers responding to the item, 67.26% answered incorrectly. The error could be attributed to the fact that older people tend to compensate for their losses by trying to appear to have full use of their senses.

Item 3: Most older people have no interest in, or capacity for, sexual relations. Almost 95% of decision-makers responding answered correctly that this statement was false. Accurate knowledge about this item may be due to contemporary societal openness about sex for all ages.

Item 4: Lung capacity tends to decline in old age. This statement is true, but over half (55.86%) of the respondents answered false. Five chose not to respond. The reason for the large number of incorrect answers could be that decreased lung capacity is not always evident when older individuals are engaged in their normal activities.

Item 5: The majority of old people seem miserable most of the time. An overwhelming majority in this study (93.97%) did not share this negative stereotype of the older individual. There were no missing data on this item; everyone obviously thought they knew the right response.

Item 6: Physical strength tends to decline in old age. One personnel decision-maker abstained and 86.09% of the subjects answered correctly that the statement is true. Declining physical strength is more obvious than is the decline of the five senses.

Item 7: At least one-tenth of the aged are living in long-stay institutions (i.e., nursing home, mental hospitals, homes for the aged, etc.). The correct answer is false and 62.04% correctly answered this item. A possible reason for error could be that a substantial number of people (37.96% of this sample) tended to overestimate the percentage of older adults in long-term care settings.

Item 8: Aged drivers have fewer accidents per person than drivers under the age of 65. Three subjects had no opinion and 43.36% said erroneously that this statement is false. The fact that older people may drive more slowly to compensate for slower reaction time could make them appear to be less competent when behind the wheel.

Item 9: Most older workers cannot work as effectively as younger workers. Only 11.40% of subjects answered incorrectly that this statement is true. Older workers seem to have dispelled this negative notion. The improved health status of the elderly could be the reason.

Item 10: About 80% of the aged are healthy enough to carry out their normal activities. Of the 115 respondents who answered this question, 93.91% answered correctly that this statement is true. Perhaps a raised level of health consciousness has made almost all participants aware of physical fitness for every age group.

Item 11: Most old people are set in their ways and unable to change. Of those responding, 38.74% answered incorrectly that this is true. This myth might contribute to some personnel decision-makers' unwillingness to hire or train older workers.

Item 12: Old people usually take longer to learn something new. Only about one-third of the respondents correctly answered that this statement is true. When answered incorrectly this is considered an example of pro-bias towards the aged.

Item 13: It is almost impossible for most old people to learn new things. Closely related to the previous item, but worded negatively, this statement was correctly answered false by 99.13% of the respondents. Perhaps the word "impossible" was responsible for the large number of respondents who answered correctly.

Item 14: The reaction time of most old people tends to be slower than the reaction time of younger people. Of the subjects responding, 83.48% answered correctly. Perhaps heightened awareness about the aging process contributed to the score.

Item 15: In general, most old people are pretty much alike. Only Item 1 had more correct responses than this item; 94.78% of the subjects correctly answered false. Respondents were obviously aware of the heterogeneity of the elderly.

Item 16: The majority of old people are seldom bored. This item evoked answers that were almost one-half (48.18%) right and a little more than one-half (51.82%) wrong. The correct response is true. It appears that not enough information has been disseminated to dispel adequately the myth.

Item 17: The majority of old people are socially isolated and lonely. The increased presence of the elderly in social activities could have contributed to the correct perception of social involvement by 74.11% of those personnel decision-makers responding to this item.

Item 18: Older workers have fewer accidents than younger people. Over three-quarters of the responding subjects (76.70%) answered correctly (true) to this statement. More people (13) did not respond to this item than any other item on the instrument. Almost one-third of the personnel decision-makers, however, either believed or were not sure that older workers may have more accidents than younger workers. This may impact on personnel decision-makers' hiring or retaining practices.

Item 19: Over 15% of the United States population are now age 65 or over. This item was incorrectly answered true by 94.29% of the respondents. Eleven respondents did not answer. With the media coverage of the increase in the older population, and with their percentage fast approaching 15% (they are currently about 12%), it is understandable that so many answered incorrectly.

Item 20: Most medical practitioners tend to give low priority to the aged. The percentage of the respondents who correctly answered true (35.45%) in this study was low. Perhaps the increasing number of older people visiting doctors' offices fosters the notion that physicians are spending more time with these individuals than they in reality are.

Item 21: The majority of older people have incomes below the poverty level (as defined by the federal government). Slightly over one-half (52.73%) of the sample thought of the elderly as poor, despite contrary national figures. Perhaps the belief that older individuals are totally dependent on Social Security contributes to this myth.

Item 22: The majority of older people are working or would like to have some kind of work to do (including housework and volunteer work). A great majority (96.52%) of the sample was aware that older individuals want to be productive. Perhaps the increase in the number of healthy older individuals has supported this belief.

Item 23: Old people tend to become more religious as they age. Of those responding, over two-thirds (69.64%)

answered incorrectly that this item was true. The reason for the large number of people responding incorrectly could be the preponderance of older individuals attending church services; possibly the older generation has always been more religious.

Item 24: The majority of older people are seldom irritated or angry. This negative stereotype was shared by 67.27% of the responding personnel decision-makers who answered false to this item. Many people may still harbor this myth about older individuals.

Item 25: The health and socioeconomic status of older people (compared to younger people) in the year 2000 will probably be the same as now. Of those responding, most answered correctly (69.72%) that the statement is false. Seven subjects did not respond. But answering correctly did not mean the respondents believed that older individuals will be better off in the future.

Question 10 (When the total scores of the personnel decision-makers on the Facts on Aging Quiz: I are categorized according to the proportion of older workers employed in the firms of the decision-makers, is there a difference ($p = .05$)?) was answered by summing the correct answers to the Facts on Aging Quiz: I (Palmore, 1977) to obtain total scores for personnel decision-makers, categorizing the decision-makers by proportion of older workers, and analyzing by means of ANOVA. The result of this ANOVA (see Appendix E) was an F ratio of .422 which not was significant at the .05 level.

Findings from the Results to Issues on the Employing the Older Worker Scale

Research Questions 2 - 5 were combined with Research Question 9 and analyzed with respect to the percentage of older workers in a firm. Research Question 9 was as follows: When the responses of the personnel decision-makers to the items on the Employing the Older Workers Scale are categorized according to the proportion of older workers employed in the firms of the personnel decision-makers, are there differences (p = .05) in (a) the item means and (b) the means of selected subsets of items? The firms were grouped by their percentage of older workers: Group 1 had no older workers, Group 2 had from .001 through 5% older workers, and Group 3 had more than 5% older workers.

Research Question 2 was as follows: To what degree do personnel decision-makers perceive selected issues to be obstacles to retaining older workers?

1. Greater absenteeism. Personnel decision-makers with no older workers in their firms considered absenteeism to be much more of a problem than did personnel decision-makers of firms with few or many older workers. It seems that having older workers, regardless of the number, makes it apparent that they take no more

time off than do younger workers. The comment is supported by the significant difference between Group 1 and Group 2 (t_b = 3.98), and between Groups 1 and 3 (t_b = 4.23). The mean response score of Group 1 was significantly higher than the mean response scores of Groups 2 and 3.

2. Greater physical limitations. It appears from the data in this study that a firm must employ a large number of older workers for personnel decision-makers not to consider physical limitations as an obstacle to retaining them. Being around older people in a work environment seems to teach personnel decision-makers that older workers are able to perform adequately their duties. The only significant difference among the groups was between Groups 1 and 3 (t_b = 2.76).

3. Difficulty in learning new tasks. Although no significant differences were found between any pairs of group means, the overall F was significant. As a practical matter, based on proportion of older workers employed, personnel decision-makers did not perceive this to be an obstacle.

4. Difficulty in reasoning or remembering. Because there was a significant difference between Groups 1 and 3 (t_b = 2.44) it can be concluded that having no older workers in a firm may hinder personnel decision-makers from first-hand knowledge of older

workers' reasoning and memory abilities. That is, the personnel decision-makers rely on stereotypical beliefs.

5. Greater cost of health insurance. Although the use of the Bonferroni t did not reveal significant differences between any of the pairs of group means, the ANOVA result indicated there was a difference among the group means. This was surprising. Firms with few workers have higher health insurance premiums because illnesses of the elderly cannot be offset by larger numbers of younger healthier workers. Large firms receive cheaper and better coverage than do small firms.

6. Cost of pension plans: There was a significant difference between Groups 1 and 3 (t_b = 2.75) but not between the other group means. It may be that the personnel decision-makers in firms with no older workers consider the cost of the premium plans an adequate excuse not to hire older workers.

7. Lower entry level salaries for younger workers. There was a significant difference between Groups 1 and 3 (t_b = 2.56) but not between the means of the other groups. The differences can be interpreted to show that firms with a large number of older employees have a greater opportunity to observe that older workers are worth more money than inexperienced workers.

8. Slower and less adaptable. There were significant differences between the means of Groups 1 and 2 (t_b =

2.47) and between Groups 1 and 3 (t_b = 2.44). Thus, the percentage of older workers in a firm is related to personnel decision-makers perceptions of older workers' speed and adaptability.

9. Issues 1 - 8: Obstacles to retaining older workers. When total scores on items 1-8 were analyzed by ANOVA, significant differences were found among groups. It was found by using the Bonferroni t that Group 1 and 2 and Group 1 and 3 were significantly different. The magnitude of the differences in the means varied from 19.52 through 23.56.

Research Question 3 was as follows: To what degree do personnel decision-makers perceive selected issues to be obstacles to hiring older workers?

1. Greater absenteeism. There was a significant difference between the means of Groups 1 and 2 (t_b = 2.67) and between Groups 1 and 3 (t_b = 2.91). A proportion of the personnel decision-makers in this study who employ older workers concluded that absenteeism is not a problem, while personnel decision-makers not employing older workers may not have had the opportunity to discover this.

2. Greater physical limitations. There was no difference among the groups. About 25% of the respondents agreed this was an obstacle.

3. Difficulty in learning new tasks. No matter what percentage of older workers a firm employed, the majority

of personnel decision-makers (over 60%) did not consider difficulty in learning new tasks to be an obstacle to hiring older workers.

4. Difficulty in reasoning or remembering. There was a significant difference between the means of Groups 1 and 3 ($t_b = 3.04$). It may be that having many older workers might enable personnel decision-makers to see the heterogeneity inherent in this group of individuals. Age is not always the determining factor in memory or reasoning ability.

5. Greater cost of health insurance. Health care costs appeared to be a concern for many of the personnel decision-makers (30.91%) in this study. They were either fearful of the costs of health insurance or undecided (26.36%) about the costs and were undecided whether costs constituted an obstacle. There was no significant mean difference among the groups.

6. Cost of pension plan. There was no consensus on this issue and no significant mean difference among the groups was found.

7. Lower entry level salaries for younger workers. Almost one-half of the subjects (49.12%) disagreed and over 5% strongly disagreed that this item constituted an obstacle to hiring older workers. There was no significant difference among the means of the three groups.

8. Slower and less adaptable. There was a significant difference between the means of Groups 1 and 3 ($t_b = 2.94$) and between Groups 2 and 3 ($t_b = 2.52$). Having many older workers may make personnel decision-makers recognize that older workers are not necessarily slow and less adaptable.

9. Issues 1 - 8: Obstacles to hiring older workers. The result of an ANOVA showed a statistically significant difference among the groups on the subset scores. The result of conducting the Bonferroni t tests produced a significant difference between Groups 1 and 3. The means of the groups were 20.03 and 23.70. This indicates that where a considerable percentage of older workers was employed, personnel decision-makers see somewhat fewer obstacles to hiring older workers.

Research Question 4 was as follows: To what degree do personnel decision-makers perceive selected issues to be advantages to retaining older workers?

1. Greater cost of training a new, younger worker. It can be inferred from the large number of personnel decision-makers (63) who agreed, when added to the personnel decision-makers (15) who strongly agreed, that the cost of training new workers was viewed by the subjects in this study as a good reason to retain older workers.

2. Cost of finding a new recruit. The percent of older employees in a firm had no bearing on whether or not personnel decision-makers considered the cost of finding a

new recruit an advantage to retaining older workers. Over 55% of the decision-makers agreed that the cost of recruitment was a consideration in the retention of older workers.

3. Cost of relocating a new, already trained recruit. It seems that the proportion of older employees did not impact on whether or not personnel decision-makers considered the cost of locating a new, already trained recruit to be an advantage. Fifty-three of the personnel decision-makers did agree that this was an advantage to retaining older workers.

4. Low turnover rate of older employees. According to the frequency distribution, most (98) of the personnel decision-makers perceived that older people tend to remain with a firm. The personnel decision-makers participating in this study considered this to be an advantage.

5. Low accident rate of older employees. Regardless of the proportion of older workers employed in a firm, personnel decision-makers were not sure whether a low accident rate was an advantage to retaining the older workers. Thirty-eight personnel decision-makers were undecided. There was no significant difference among the group means.

6. Transfer of knowledge from older workers to younger workers. Of the 116 respondents, about 86% considered transfer of knowledge to younger workers to be an advantage. The data could be the result of the sample

which consisted of a large number of service firms where technological advances are relatively meaningless. Since agreement was as high as it was on this item among all the groups, there is the implication that these personnel decision-makers consider transfer of knowledge to be a reason to retain older workers.

7. Ethical responsibility to older workers. Having more than 5% older workers appears to make possible the establishment of personal bonds. There was difference between the means of Groups 2 and 3 ($t_b = -2.85$).

8. Issues 1-7: Advantages to retaining older workers. When the groups were compared for the total subset the result was not significant. It was concluded that there was no relationship between the percentage of older workers employed in a firm and personnel decision-makers' perceptions of the advantages to retaining older workers.

Research Question 5 was as follows: To what degree do personnel decision-makers perceive selected issues to be advantages to hiring older workers?

1. Greater cost of training a new, inexperienced worker. Of the total group, less than half agreed with the statement, over one-fifth was undecided, and nearly one-third did not agree; there was no significant difference among the groups.

2. Low turnover rate of older workers. There was a significant difference between the means of Groups 2 and 3 ($t_b = -2.56$). Having many older workers may make it

possible to observe the loyalty of the aged employee as opposed to their younger counterparts. Having no older workers--or only a few--appears to diminish this possibility.

3. Tax advantage in hiring older workers. This item garnered more undecided responses (52) than any other item on the scale. The reason could have been lack of knowledge concerning the tax structure. There were no differences among the group means.

4. Availability for work at odd hours. Almost one half of the personnel decision-makers sampled considered odd hour availability an advantage; there was no significant difference among the groups.

5. Availability for part-time work. There was no significant difference among the groups means. Nearly two-thirds of personnel decision-makers agreed that this was an advantage in hiring older workers.

6. Appearance of stability and continuity of company. Many personnel decision-makers (69.56%) considered this issue to be an advantage to hiring older workers. Age may very well connote stability in the minds of personnel decision-makers participating in this study. There was no significant differences among the group means.

7. Greater appeal to older customers. Over half of the personnel decision-makers agreed that older workers instill confidence in their peers and that this was an

advantage to hiring them. There was no significant difference among the groups.

8. Issues 1 - 7: Advantages to hiring older workers. When the groups were compared for the total subset, the result was not significant. Thus it was concluded that the percentage of older workers employed in a firm and personnel decision-makers' perceptions of the advantages to hiring older workers were not related.

Research Question 6 was as follows: What is the relationship between personnel decision-makers' knowledge about aging and their level of responses to obstacles to hiring and retaining older workers?

Research Question 7 was as follows: What is the relationship between personnel decision-makers' knowledge about aging and their level of responses to the advantages to hiring and retaining older workers?

Although there were no strong correlations between the personnel decision-makers' knowledge score and the level of responses to perceptions of obstacles and advantages, 7 of the 30 Pearson correlations were significant ($p = .05$). Mere knowledge about older adults does not necessarily ensure personnel decision-makers' perceptions concerning obstacles and advantages will be positive or that retaining or hiring practices will equate with either knowledge or perceptions.

Research Question 8 was as follows: What is the relationship between personnel decision-makers' knowledge about aging and the proportion of older workers in a firm?

The knowledge that personnel decision-makers participating in this study possessed about older adults had little relationship to the proportion of older workers in their firms (r = .03). Various reasons could have contributed to this finding: (a) personnel decision-makers' knowledge might not be the important variable in determining the proportion of older workers in a firm; (b) although personnel decision-makers may have wished to hire the elderly, the number of older people seeking employment might have been negligible; and (c) the desire to retire on the part of the workers themselves might have contributed to a low proportion of elderly in a firm.

Recommendations for Future Research

One might conclude from the data collected in this study that it is not personnel decision-makers' perceptions that need changing. It may be that older workers need to change. Those who counsel seniors and those who train counselors must encourage older workers to take advantage of opportunities within the work place. The personnel decision-makers in this study reported few obstacles and many advantages to hiring and retaining older workers. But the personnel decision-makers did have some misconceptions concerning older workers that could negatively impact upon hiring practices.

Education of counselors to interface with personnel decision-makers and older individuals could serve to mitigate the problem that results from a lack of older workers. The researcher recommends the following:

1. Further research should be conducted to explore other underlying causes for the low proportion of older workers in Central Florida firms. The results of this study indicate that personnel decision-makers' perceptions of obstacles and advantages to hiring and retaining older workers does not appear to be the cause of the low older worker employment rate.

2. If personnel decision-makers view older workers in a generally favorable light--as might be inferred from the data in this study--but are not hiring or retaining them in appreciable numbers, then researchers should look at the negative policies in firms.

3. Studies are also needed to focus on company policies and practices as they pertain to employee needs and perceptions. Perhaps the older worker is the problem as well as the solution. No one knows exactly what the older worker wants or needs from the work place.

4. The lack of older workers as personnel decision-makers may contribute to the small proportion of older workers in a firm. This would be a worthy study. 5. The results of this study indicate that concerns about

health care insurance and pension accrual seem to be primary stumbling blocks to personnel decision-makers' older worker hiring practices. Research is needed into what personnel decision-makers view as solutions to the problems.

6. With fewer people entering the job market it becomes cost effective to keep and retain older workers. Research is needed to determine what programs are necessary to educate personnel decision-makers to the cost effectiveness of encouraging older workers to remain on the job.

7. Fewer and fewer older people are remaining in the work place. Needed are studies to help determine what would reverse this trend in terms both of job training and program design. From the previous studies conducted, it was found that older people want flexible work schedules, job redesign, and challenge (Bird, 1988). Perhaps other inducements could be found in benefit and compensation policies plus more access to education and retraining programs.

APPENDIX A
TELEPHONE SCRIPT

Hello:

My name is Rosa Lee Kaminsky and I am a doctoral candidate at the University of Florida in Gainesville. As part of my dissertation, I am conducting a survey of decision-makers' knowledge about older adults and their perceptions of obstacles and advantages to retaining and hiring older workers.

I would appreciate it if you would agree to be a part of this study. All that's required is the filling out of two short forms. All information will be kept in strictest confidence. The forms will be mailed to you with a pre-addressed, stamped, return envelope. I would like to have the forms returned to me within two weeks of receipt.

Again, I sincerely appreciate your participation in this research. Thank you.

APPENDIX B
COVER LETTER AND INSTRUCTIONS FOR QUESTIONNAIRE

Dear Participant:

Thank you for agreeing to be a part of the survey I am conducting as part of my graduate studies at the University of Florida. As I mentioned in our telephone conversation, I am interested in measuring your knowledge about older adults. I am also interested in discovering what are considered advantages and obstacles to hiring and retaining older workers. Your participation will help in compiling a current assessment of these factors.

The enclosed questionnaires have directions attached to each form. A self-addressed, return envelope is provided for you to return the forms within two weeks. Please be assured that all responses will be anonymous and confidential. No individual or firm will be identified.

Please call me at (305) 774-0410 if you have any questions regarding this survey. Thank you very much for your participation in this project.

Very truly yours,

Rosa Lee Kaminsky

APPENDIX C
FOLLOW-UP LETTER

Dear _______________:

Recently you agreed to participate in a study I was conducting to assess decision-maker knowledge about older adults and their perceptions of obstacles and advantages to retaining and hiring older workers. Since I have not received a response from you, I am taking this opportunity to once again ask that you help in this project by returning the forms I am enclosing, in the event that you misplaced the others.

I realize that you and your staff are quite busy, but I hope you will complete the questionnaires. Your cooperation is greatly appreciated.

If you have any questions concerning this study, please contact me at (305) 774-0410. Thank you again if you have already completed and returned these forms. Do not send them again.

Very truly yours,
Rosa Lee Kaminsky

APPENDIX D
THE SURVEY INSTRUMENTS

Employing the Older Worker Scale

Type of firm______________________________
Number of employees in your firm locally ____________
How many of your employees are 65 years of age or older?
#________, ________%
Your age, please ______ Your position ______________
How many years have you been in this position __________

In the questions below, the following initials will stand for these answers:

SA = Strongly Agree
A = Agree
U = Undecided
D = Disagree
SD = Strongly Disagree

Please circle the one answer for each item that best describes how you feel. Please answer all the items even if you have no older workers in your firm.

In your company, to what extent do you agree that the following are advantages to retaining currently employed workers 65 years or older?

1. Greater cost of training a new, younger worker. SA A U D SD

2. Cost of finding a new recruit. SA A U D SD

3. Cost of relocating a new, already trained recruit. SA A U D SD

4. Low turnover rate of older employees. SA A U D SD

5. Low accident rate of older employees. SA A U D SD

6. Transfer of knowledge from older workers to younger workers. SA A U D SD

7. Ethical responsibility to older workers. SA A U D SD

8. Other ________________________
____

In your company, to what extent do you agree that the following are advantages to hiring unemployed workers 65 years or older?

1. Greater cost of training a new, inexperienced worker. SA A U D SD

2. Low turnover rate of older workers. SA A U D SD

3. Tax advantage in hiring older workers. SA A U D SD

4. Availability for work at odd hours. SA A U D SD

5. Availability for part-time work. SA A U D SD

6. Appearance of stability and continuity of company. SA A U D SD

7. Greater appeal to older customers. SA A U D SD

8. Other ______________________________
____

In your company, to what extent do you agree that the following are obstacles to retaining currently employed workers 65 years or older?

1. Greater absenteeism. SA A U D SD

2. Greater physical limitations. SA A U D SD

3. Difficulty in learning new tasks. SA A U D SD

4. Difficulty in reasoning or remembering. SA A U D SD

5. Greater cost of health insurance. SA A U D SD

6. Cost of pension plan. SA A U D SD

7. Lower entry level salaries for younger workers. SA A U D SD

8. Slower and less adaptable. SA A U D SD

9. Other ______________________________
____

In your company, to what extent do you agree that the following are obstacles to hiring unemployed workers 65 years or older?

1.	Greater absenteeism.	SA	A	U	D	SD
2.	Greater physical limitations.	SA	A	U	D	SD
3.	Difficulty in learning new tasks.	SA	A	U	D	SD
4.	Difficulty in reasoning or remembering.	SA	A	U	D	SD
5.	Greater cost of health insurance.	SA	A	U	D	SD
6.	Cost of pension plan.	SA	A	U	D	SD
7.	Lower entry level salaries for younger workers.	SA	A	U	D	SD
8.	Slower and less adaptable.	SA	A	U	D	SD

9. Other ______________________________
____
____

Facts on Aging Quiz: I

Please circle T for True and F for False.

T F 1. The majority of older people (past age 65) are senile (i.e., defective memory, disoriented, or demented).

T F 2. All five senses tend to decline in old age.

T F 3. Most older people have no interest in, or capacity for sexual relations.

T F 4. Lung capacity tends to decline in old age.

T F 5. The majority of old people feel miserable most of the time.

T F 6. Physical strength tends to decline in old age.

T F 7. At least one-tenth of the aged are living in long-stay institutions (i.e., nursing homes, mental hospitals, homes for the aged, etc.).

T F 8. Aged drivers have fewer accidents per person than drivers under the age of 65.

T F 9. Most older workers cannot work as effectively as younger workers.

T F 10. About 80% of the aged are healthy enough to carry out their normal activities.

T F 11. Most older people are set in their ways and unable to change.

T F 12. Old people usually take longer to learn something new.

T F 13. It is almost impossible for most old people to learn new things.

T F 14. The reaction time of most old people tends to be slower than the reaction time of younger people.

T F 15. In general, most old people are pretty much alike.

T F 16. The majority of old people are seldom bored.

T F 17. The majority of old people are socially isolated and lonely.

T F 18. Older workers have fewer accidents than younger people.

T F 19. Over 15% of the U.S. population are now 65 or older.

T F 20. Most medical practitioners tend to give low priority to the aged.

T F 21. The majority of older people have incomes below the poverty level (as defined by the federal government).

T F 22. The majority of older people are working or would like to have some kind of work to do (including housework and volunteer work).

T F 23. Older people tend to become more religious as they age.

T F 24. The majority of older people are seldom irritated or angry.

T F 25. The health and socioeconomic status of older people (compared to younger people) in the year 2000 will probably be about the same as now.

APPENDIX E
SUMMARY VALUE OF DATA

Comparision of the means on obstacles to retaining older workers among the three groups (0, .001 through 5.00%, more than 5%.

Group 1	23.559	59
Group 2	19.786	28
Group 3	19.517	29
GRAND MEAN	21.638	116

Source	Sum of the Squares	D.F.	Mean Square	F Ratio	Prob.
Between	444.295	2	222.148	10.492	.0000
Within	2392.498	113	21.173		
Total	2836.793	115			

Comparision of the means on obstacles to hiring older workers among the three groups (0, .001 through 5.00%, more than 5%.

Group 1	23.695	59
Group 2	21.321	28
Group 3	20.034	29
GRAND MEAN	22.207	116

Source	Sum of the Squares	D.F.	Mean Square	F Ratio	Prob.
Between	289.53	2	144.727	6.731	.0000
Within	2429.581	113	21.501		
Total	2718.034	115			

Comparision of the means on advantages to retaining older workers among the three groups (0, .001 through 5.00%, more than 5%).

Group 1	25.475	59
Group 2	25.000	28
Group 3	26.793	29
GRAND MEAN	25.690	116

Source	Sum of the Squares	D.F.	Mean Square	F Ratio	Prob.
Between	51.357	2	25.679	1.470	.2342
Within	1973.470	113	17.464		
Total	2024.828	115			

Comparision of the means on advantages to hiring older workers among the three groups (0, .001 through 5.00%, more than 5%.

Group 1	24.153	59
Group 2	22.607	28
Group 3	25.103	27
GRAND MEAN	24.017	116

Source	Sum of the Squares	D.F.	Mean Square	F Ratio	Prob.
Between	90.970	2	45.485	2.151	.1211
Within	2388.995	113	21.142		
Total	2479.966	115			

The analysis of scores on Facts on Aging Quiz: I among all three groups (0, .001 through 5.00%, more than 5%).

Group 1	15.898	59
Group 2	16.071	28
Group 3	16.414	29
GRAND MEAN	16.069	116

Source	Sum of the Squares	D.F.	Mean Sqare	F Ratio	Prob.
Between	5.167	2	2.583	.422	.6570
Within	692.281	113	6.126		
Total	697.448	115			

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I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dessertation for the degree of Doctor of Education.

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I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dessertation for the degree of Doctor of Education.

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